PETROLEUM PIPELINE REGULATORY REFORM BILL

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY REGULATION

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

SECOND SESSION

ON

S. 1626

A BILL TO AMEND THE DEPARTMENT OF ENERGY ORGANIZATION ACT TO CLARIFY THE JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION, TO REFORM AND IMPROVE THE REGULATION OF OIL PIPELINES, AND FOR OTHER PURPOSES

MAY 21, 1982

Publication No. 97-95

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE
98-549 O WASHINGTON : 1982

S 311-56

COMMITTEE ON ENERGY AND NATURAL RESOURCES

JAMES A. McCLURE, Idaho, *Chairman*

MARK O. HATFIELD, Oregon
LOWELL P. WEICKER, Jr., Connecticut
PETE V. DOMENICI, New Mexico
MALCOLM WALLOP, Wyoming
JOHN W. WARNER, Virginia
GORDON J. HUMPHREY, New Hampshire
FRANK H. MURKOWSKI, Alaska
DON NICKLES, Oklahoma
JOHN P. EAST, North Carolina
JOHN HEINZ, Pennsylvania

HENRY M. JACKSON, Washington
J. BENNETT JOHNSTON, Louisiana
DALE BUMPERS, Arkansas
WENDELL H. FORD, Kentucky
HOWARD M. METZENBAUM, Ohio
SPARK M. MATSUNAGA, Hawaii
JOHN MELCHER, Montana
PAUL E. TSONGAS, Massachusetts
BILL BRADLEY, New Jersey

Michael D. Hathaway, *Staff Director*
Charles A. Trabandt, *Chief Counsel*
D. Michael Harvey, *Chief Counsel for the Minority*

Subcommittee on Energy Regulation

GORDON J. HUMPHREY, New Hampshire, *Chairman*

DON NICKLES, Oklahoma
PETE V. DOMENICI, New Mexico
JOHN P. EAST, North Carolina
JOHN HEINZ, Pennsylvania

J. BENNETT JOHNSTON, Louisiana
WENDELL H. FORD, Kentucky
HOWARD M. METZENBAUM, Ohio
JOHN MELCHER, Montana

James A. McClure and Henry M. Jackson are Ex Officio Members of Subcommittee

Howard Useem, *Professional Staff Member*

CONTENTS

Page
S. 1626 3

STATEMENTS

Anderson, John F., president, Farmland Industries, Inc 387
Bailey, Keith E., president, Williams Pipe Line Co 357
Barber, Richard J., president, Richard J. Barber Associates, Inc 285
Baxter, Hon. William F., Assistant Attorney General, Antitrust Division, Department of Justice 108
Butler, Hon. C. M., III, Chairman, Federal Energy Regulatory Commission 116
Cowles, C. Deming, director of State/Federal relations, Office of the Governor, State of Alaska, accompanied by Teo Spengler, deputy director, and Robert Loeffler, Law Firm of Morrison & Foerster 147
DeMuth, Hon. Christopher C., Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget 135
Dryer, Edwin Jason, executive secretary and general counsel, Independent Refiners Association of America 377
Mares, Hon. Jan W., Acting Deputy Under Secretary, Department of Energy, accompanied by Leonard L. Coburn, Acting Director, Office of Competition, Department of Energy 11
Mitchell, Edward J., professor of business economics, University of Michigan... 183
Murkowski, Hon. Frank H., a U.S. Senator from the State of Alaska 6
Nickles, Hon. Don, a U.S. Senator from the State of Oklahoma 1
Roper, John Dee, executive vice president, Koch Refining Co 426
Taylor, Dean B., chairman, Association of Oil Pipe Lines 167
Thomas, Robert E., chairman, Mapco, Inc 410
Van Arsdall, R. Thomas, vice president, Energy Resources, National Council of Farmer Cooperatives 346

APPENDIXES

APPENDIX I

Responses to additional committee questions 455

APPENDIX II

Additional statements and communications submitted for the record 526

PETROLEUM PIPELINE REGULATORY REFORM BILL

FRIDAY, MAY 21, 1982

U.S. Senate,
Subcommittee on Energy Regulation,
Committee on Energy and Natural Resources,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room 3110, Dirksen Office Building, Hon. Don Nickles, presiding.

Present: Senators Nickles and Murkowski.

Also present: Howard Useem, professional staff member, and Elizabeth Moler, counsel for the minority.

OPENING STATEMENT OF HON. DON NICKLES, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator Nickles. Good morning. I need to advise all of our panelists and all of our guests this morning that we are under some very, very severe time constraints. We apologize for the fact that we are still negotiating the budget and are in session right now. We were in session last night until I think 12:30, and I expect we may have votes in the near term.

There is a time constraint. We only have 5 hours left on the budget. I think we still have something like 20-some amendments, most of which are expected to have rollcalls, and so we really are under a time constraint.

There has been an objection filed for us meeting today beyond the hour of 11 o'clock. We have witnesses today that come from as far as Alaska and throughout the United States. It is my intention to conclude this hearing by 11 o'clock and so I am going to insist that all of our panelists make very abbreviated remarks. All the statements will be entered into the record as if read. We will keep the record open for additional written questions from myself and other members of the committee that have an interest on this issue.

It is my intention to have this meeting over by 11 o'clock which is not fair to many people, but it would certainly be less fair if we didn't give everybody a chance to at least make a few abbreviated comments concerning this legislation.

Today's hearing is on Senate bill 1626, the Department of Energy Reorganization Act and Amendments of 1981. It is also known as the petroleum pipeline regulatory reform bill. We look forward today to hearing testimony from a variety of distinguished witnesses, and we also welcome today testimony on the printed amendment No. 1239 which would add ICC amendments to S. 1626 as well as include the trans-Alaskan pipeline under this regulatory reform.

I am an ardent supporter of regulatory reform when it eliminates unnecessary and costly regulations, especially when such regulations restrict healthy competition in the marketplace.

The examination of current Federal regulation and tariffs on the pipeline transportation of petroleum and petroleum products has led me to conclude that such regulation is counterproductive and wasteful. It appears to me that rates in this industry are already effectively regulated by competition.

Reform of these laws in my opinion will save the taxpayer money, will reduce the cost of regulation for petroleum pipelines, the savings of which can be passed on to the pipeline shippers and ultimately the consumer.

It also would remove the cloud of uncertainty about regulations now present in the petroleum pipeline industry that will need to attract many millions of dollars in investment by the end of this century to accommodate the needs of the Nation.

The industry is a vital component of our national transportation system. About 87 percent of the domestic crude oil and nearly one-half of all oil products are now moved by pipeline. With more than 227,000 miles of crude oil and product pipelines, the petroleum pipeline network carries almost 25 percent of all intercity freight. They are a valuable national resource in the fight to keep down the cost of delivered petroleum products.

As a measure against possible discriminatory or preferential behavior by pipelines, Senate bill 1626 would leave in tact the common carrier obligations. The Federal Energy Regulatory Commission, FERC, would remain the forum in which a shipper could seek relief from allegedly abusive practices of a pipeline.

It is time not to reevaluate the method for regulating the petroleum pipeline rates, but to reevaluate the need for any petroleum pipeline rate regulation. The industry is characterized today by pervasive competition, and it is competition, not Government regulation, which should be allowed to work in the marketplace and set petroleum pipeline rates.

Competition exists in the forms of numerous pipelines covering the same routes and owned by different parties, by barges and coastal tankers which also offer low-cost transportation; also trucks and railroads, while not always as economical, many times can provide service advantages over pipelines that outweight price considerations.

The fact of competition and virtual absence of shipper complaints during the more than 40 years of oversight by the ICC make it appear to me that continued regulation of petroleum pipelines by the Federal Government is just not sensible.

We are a nation regulated beyond commonsense. The changes we have proposed in S. 1626 I believe will be a good first step in removing this important industry from beneath counterproductive and wasteful regulations.

[The text of S. 1626 follows:]

II

97TH CONGRESS
1ST SESSION

S. 1626

To amend the Department of Energy Organization Act to clarify the jurisdiction of the Federal Energy Regulatory Commission, to reform and improve the regulation of oil pipelines, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 15 (legislative day, SEPTEMBER 9), 1981

Mr. NICKLES (for himself, Mr. WALLOP, and Mr. MURKOWSKI) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

OCTOBER 23 (legislative day, OCTOBER 14), 1981

Referred jointly to the Committees on Commerce, Science, and Transportation and Energy and Natural Resources, by unanimous consent

---

A BILL

To amend the Department of Energy Organization Act to clarify the jurisdiction of the Federal Energy Regulatory Commission, to reform and improve the regulation of oil pipelines, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Department of Energy Organization Act Amendments of 1981".

SEC. 2. It is the purpose of this Act—

(1) to foster a competitive oil pipeline industry and assure service on an equal basis without unjust discrimination;

(2) to induce the investment in new oil pipeline construction and expansion necessary to achieve maximum productivity; and

(3) to encourage the elimination of unnecessary regulation.

SEC. 3. (a) Section 306 of the Department of Energy Organization Act (42 U.S.C. 7155) is repealed.

(b) Section 402(b) of the Department of Energy Organization Act (42 U.S.C. 7172(b)) is repealed.

(c) Section 402 of the Department of Energy Organization Act (42 U.S.C. 7172) is amended by adding at the end thereof the following:

"(i) Subject to section 4 of the Department of Energy Organization Act Amendments of 1981, there are hereby transferred to, and vested in, the Commission such functions which were transferred to the Secretary under section 306 of this Act (as section 306 existed on the day before the date of enactment of this subsection) and there are vested in the Commission such functions and authority which were transferred to, and vested in, the Commission under subsection (b) of this section (as subsection (b) existed on the day before the date of enactment of this subsection).".

SEC. 4. (a) Except as provided in subsection (b), those provisions of law which vested functions transferred by section 306 and 402(b) of the Department of Energy Organization Act, are repealed to the extent those provisions of law vest authority to suspend, determine, or prescribe rates, fares, or charges for the transportation of oil by pipeline.

(b) The repeal in subsection (a) shall not apply with respect to the vesting of authority to suspend, the determine, or prescribe rates, fares, or charges which are for the transportation of oil by the trans-Alaska pipeline.

○

Senator NICKLES. Senator Murkowski, we welcome you. We welcome your input and also your cosponsorship of this legislation. I need to inform you that we do not have permission to sit beyond 11 o'clock, and so it is going to be necessary for us to run this hearing as quickly and as expeditiously as possible in order to give all the panelists a chance to appear today.

STATEMENT OF HON. FRANK H. MURKOWSKI, A U.S. SENATOR FROM THE STATE OF ALASKA

Senator MURKOWSKI. Thank you, Senator Nickles. I would like to thank you for this opportunity to be here this morning as the Subcommittee on Energy Regulation begins its consideration of S. 1626, a bill to deregulate our Nation's petroleum pipelines.

Of course, I have a great deal of interest in this legislation. As we all know, the largest and most unique pipeline system in the Nation lies in my own State of Alaska. The trans-Alaska pipeline system, or TAPS, represents about half of the total investment in U.S. oil pipelines. It is the sole means of bringing domestic produced crude oil from the largest U.S. field at Prudhoe Bay, Alaska, to the ice-free port of Valdez, 800 miles to the south. I would also add TAPS provides about half of the revenues of all major U.S. oil pipelines. Clearly, the unique nature of this particular pipeline system requires us to consider the question of regulation as it relates to TAPS in a most careful and prudent manner.

Generally, I am an advocate of deregulation initiatives. I was a cosponsor with Senator Nickles of S. 1626 as it was originally introduced. That version of the bill contained a provision excluding TAPS, an exclusion that recognized the systems unique standing among U.S. petroleum pipeline systems.

The printed amendment to S. 1626 submitted by Senator Nickles on December 11, 1981, removed the TAPS exclusion, and will if adopted transform this measure to one I cannot support. I will not be able to support any measure without a TAPS exclusion for several reasons.

First, there are no competitive alternatives to TAPS. TAPS is the only possible carrier to transport oil from Alaska's North Slope amounting to some 18.8 percent of our total domestic production to markets in the lower 48. TAPS is truly a monopoly. It has no actual or potential competition. Alternatives such as icebreaking tankers, a trans-Canadian pipeline, a railway transportation, have been promptly rejected in the past as totally impractical. The physical, legal, and economic difficulties associated with the construction of another competing pipeline, particularly when the capacity of the existing TAPS can be expanded at a fraction of the cost of new pipeline construction, makes the construction of a competitive alternative a very, very remote possibility.

Because the TAPS is a monopoly, we cannot deregulate to allow the TAPS' owners to charge what the market will bear. To do so could very well retard the development of new oil reserves on the North Slope. That, Mr. Chairman, is a potential situation that is inconsistent with our goal of achieving a greater degree of energy self-sufficiency.

Second, Mr. Chairman, the prospect of competition among the TAPS' owners is unlikely so long as the pipeline remains at or near capacity and affiliates of the major owners of the pipeline are also, are also the major North Slope producers. The fact is North Slope oil producers, through its affiliates' ownership of TAPS, control the major portion of the sole means of getting their oil to Valdez. As a result, despite the arguments of the proponents of TAPS deregulation, a rational TAPS owner who is free to set his own tariff would not be inclined to lower his rates. To do so would reduce his own profits and would at the same time result in higher transportation costs for his producer affiliates, so long as the pipeline continues to operate under a common carrier status and remains at or near its capacity. Quite simply, the pipeline owners in an unregulated situation will have an economic incentive to set their tariffs at the maximum level they can.

Mr. Chairman, I have additional opening remarks, but in the interest of time I would ask they be included in the record.

Senator NICKLES. Without objection so ordered. I appreciate your comments very much, Senator, and also the amount of time and input that you have had into its effect on your State.

[The prepared statement of Senator Murkowski follows:]

Statement of
Senator Frank H. Murkowski
on
S. 1626 Before the
Subcommittee on Energy Regulation
Committee on Energy and Natural Resources

May 21, 1982

Good morning and thank you, Mr. Chairman. I appreciate this opportunity to be here this morning as the Subcommittee on Energy Regulation begins its consideration of S. 1626, a bill to deregulate our nation's petroleum pipelines.

I have a great deal of interest in this legislation. As we all know, the largest and most unique pipeline system in the nation lies in my own State of Alaska. The Trans-Alaska Pipeline System (TAPS) represents about half of the total investment in U. S. oil pipelines. It is the sole means of bringing domestically produced crude oil from the largest U. S. oil field at Prudhoe Bay, Alaska, to the ice-free port of Valdez, 800 miles to the south. I would also add that the TAPS provides about half of the revenues of all major U. S. oil pipelines. Clearly, the unique nature of this particular pipeline system requires us to consider the question of regulation as it relates to TAPS in a most careful, prudent manner.

Generally, I am an advocate of deregulation initiatives. I was a cosponsor of S. 1626 as it was originally introduced. That version of the bill contained a provision excluding TAPS -- an exclusion that recognized the system's unique standing among U. S. petroleum pipeline systems. The printed amendment to S. 1626 submitted by Mr. Nickles on December 11, 1981, removed the TAPS exclusion and will, if adopted, transform this measure to one I cannot support. I will not be able to support any measure without a TAPS exclusion for several reasons:

First, there are no competitive alternatives to TAPS. TAPS is the only possible carrier to transport oil from Alaska's North Slope -- amounting to some 18.8% of our total domestic production -- to markets in the lower-48. TAPS is a monopoly. It has no actual or potential competition. Alternatives such as ice breaking tankers, a trans-Canada pipeline, and railway transport have been promptly rejected in the past as impractical. The physical, legal, and economic difficulties associated with the construction of another competing pipeline, particularly when the capacity of the existing TAPS can be expanded at a fraction of the cost of new pipeline construction, makes the construction of a competing alternative a remote possibility. Because the TAPS is a monopoly, we cannot deregulate to allow the TAPS owners to charge what the marke will bear. To do so could very well retard the development of new oil reserves on the North Slope. That, Mr. Chairman, is a potential situation that is inconsistent with our goal of achieving a greater degree of energy self-sufficiency.

Second, Mr. Chairman, the prospect of competition among TAPS owners is unlikely so long as the pipeline remains at or near capacity and affiliates of the major owners of the pipeline are also the major North Slope producers. The fact is, North Slope oil producers, through its affiliates' ownership of TAPS, control the major portion of the sole means of getting their oil to Valdez. As a result, despite the arguments of the proponents of TAPS deregulation, a rational TAPS owner who is free to set his own tariff would not be inclined to lower his rates. To do so would reduce his own profits and would at the same time result in higher transportation costs for his producer affiliate so long as the pipeline continues to operate under common carrier status and remains at or near its capacity. Quite simply, the pipeline owners in an unregulated situation will have an economic incentive to set their tariffs at the maximum level they can.

Finally, Mr. Chairman, I must mention that the deregulation of TAPS will result in a substantial revenue loss to my own State of Alaska. Since TAPS is a natural monopoly, its tariffs will become unreasonably high in the absense of regulation. Alaska derives revenues from its severence tax on oil produced in the State and from its royalty interests in Prudhoe Bay oil. These sources of revenue are directly tied to the wellhead value of the oil. Since Alaskan oil is generally sold in the marketplace at or near world market prices, any increase in transportation costs lowers the wellhead value of the oil upon which State revenues are based. It has been estimated that a $1 increase in the pipeline tariff will result in an annual revenue loss to the State of Alaska of roughly $150 million.

For all of these reasons, Mr. Chairman, I must steadfastly oppose any legislation attempting to deregulate the Trans-Alaska Pipeline System. As a matter of public policy, it doesn't make good sense to deregulate natural monopolies. As it related to the potential revenue impact to my own State, I don't believe it is fair to ask my State to absorb a revenue loss of this magnitude in the absence of a clear case for the deregulation of TAPS. I am confident that my colleagues will find that a clear case for TAPS deregulation does not exist. Rather, a compelling case can be made against the deregulation of TAPS, as it is a unique and natural monopoly among petroleum pipelines.

Senator **Nickles**. Our first guests and panelists are representatives from Department of Energy, Department of Justice, Federal Energy Regulatory Commission, and the Office of Management and Budget. We will enter your statements in full. Due to time constraints we ask that each of you just make a brief oral statement which will allow the committee the opportunity to ask you some brief questions. I apologize for the necessity of doing so and also probably for the necessity of having to send to you written questions. Mr. Mares, would you please begin.

STATEMENT OF HON. JAN W. MARES, ACTING DEPUTY UNDER SECRETARY, DEPARTMENT OF ENERGY, ACCOMPANIED BY LEONARD L. COBURN, ACTING DIRECTOR, OFFICE OF COMPETITION, DEPARTMENT OF ENERGY

Mr. **Mares**. Mr. Chairman, I would like simply to read the first paragraph of our statement because I think that is our conclusion.

I am accompanied by Leonard Coburn, who is the Acting Director of the Office of Competition, and he can remain to answer questions when I have to leave.

I appreciate the opportunity to appear before you today to present the views of the Department of Energy on oil pipeline rate deregulation.

At the outset, let me indicate our position on this subject, and then I will present the reasons for it. Oil pipelines should not be subject to economic regulation. As indicated in other testimony today, we do believe that the trans-Alaska pipeline system, TAPS, should remain subject to regulation.

At DOE we are particularly concerned about the impact TAPS deregulation could have on exploration and lease sales on the Northern Slope of Alaska. For all other pipelines that are deregulated, provisions should be made for reimposition of regulation of an individual pipeline when it can be demonstrated that a pipeline has sufficient monopoly power. Because regulation is appropriate only where there is insufficient competition, the applicant should bear a meaningful burden of justification of the reimposition of regulation, and we would be prepared to work with the committee to develop the appropriate standard.

I might also say I would like to introduce for the record as supplemental to my statement an article by Basil Manning in the Business Lawyer of November, 1977, entitled, "Too Much Law: Our National Disease." In addition, I would like to introduce the DOE study, "Petroleum Pipeline Deregulation: A Competitive Analysis" to support my statement.

Thank you, sir.

[The prepared statement and additional material submitted by Mr. Mares follows:]

STATEMENT OF JAN W. MARES

Acting Deputy Under Secretary

U. S. DEPARTMENT OF ENERGY

Hearings on

S. 1626

Department of Energy Organization Act Amendments of 1981

May 21, 1982

Committee on Energy and Natural Resources

Subcommittee on Energy Regulation

U. S. Senate

Mr. Chairman, Members of the Subcommittee,

I am Jan W. Mares, Acting Deputy Under Secretary, Department of Energy. I appreciate the opportunity to appear before you today to present the views of the Department of Energy on oil pipeline rate deregulation. At the outset, let me indicate our position on this subject and then I will present the reasons for it. Oil pipelines should not be subject to economic regulation. As indicated in other testimony today, however, we do believe that the Trans Alaska Pipeline System (TAPS) should remain subject to regulation. At DOE, we are particularly concerned about the impact TAPS deregulation could have on exploration and lease sales on the Northern Slope of Alaska. For all other pipelines that are deregulated, provisions should be made for the reimposition of regulation of an individual pipeline when it can be demonstrated that a pipeline has significant monopoly power. Because regulation is appropriate only where there is insufficient competition, the applicant should bear a meaningful burden of justifying reimposition of regulation. I will turn now to the reasons why we have reached this position.

Why Regulate?

Regulation of petroleum pipelines initially was justified to curb and prevent the abuses used by monopolists such as the Standard Oil Trust. There is a rather well-known history that led to the initial imposition of regulation in 1906 which I will not go into here since it has been so well documented elsewhere. Suffice it to say that early pipeline owners used both access to pipelines and rates charged on pipelines to control the crude oil producing fields.

Therefore, the initial reasons used to justify regulation were the traditional ones--the control of monopoly power in pipelines through guarantees of access, control over rates, and regulation of discriminatory activity. Market forces were not assuring competitive results, and regulation through regulatory agencies was created to insure that the beneficial results of competition were achieved through regulation.

From an economist's viewpoint, regulation has been justified because pipelines have natural monopoly characteristics; that is, they exhibit substantial economies of scale such that average costs continue to decline over the entire range of output. In that case, only one pipeline between two areas such as a refining area and a marketing area would be built and regulation may have to be imposed to make sure that the pipeline monopolist does not exploit its monopoly power through anticompetitive conduct. I might add at this point that our analysis indicates that this theoretical basis for rate regulation is not borne out in practice in the case of oil pipelines.

Regulation: Benefits and Costs

Regulation has been used to prevent inefficiencies and misallocation of resources stemming from the actions of the pipeline monopolist. These inefficiencies, include (1) the excess profits garnered by the pipeline from other industry segments--producers, shippers, and consumers; (2) the losses in social welfare or efficiency stemming from prices that are higher than the competitive level, and leading to suboptimal production and consumption; and (3) the elimination of control of other markets.

Basically, regulation is intended to squeeze out the various forms of inefficiencies that result from monopoly behavior. But regulation also can impose costs, such as administrative cost, the distortion of investment incentives, and the managerial disincentives to minimize costs. If, however, the pipeline industry has become competitive over the years, then regulation no longer may be required to control monopoly power. Then the administrative and other costs associated with regulation could be avoided without yielding to the monopoly power of pipelines. The issue, therefore, is whether the pipeline industry is sufficiently competitive to achieve the benefits of the marketplace without having to rely upon regulation.

Pipeline Industry Competition

The effectiveness of the competitive process usually is assessed by looking at the structure, behavior, and performance of an industry. Structure is indicative of the ability and likelihood of firms in an industry to act independently or collusively. The concentration of the firms in the industry is an aspect of structure that yields an objective criterion from which subjective judgments can be drawn. The conditions of entry, another aspect of structure, play an equal, if not paramount role, since high concentration can be undermined through entry. The behavior of firms in the industry often follows from the industry structure and indicates its competitive or anticompetitive tendencies. Industry performance is examined to determine whether the industry yields competitive or noncompetitive results, e. g., are profits at or above competitive levels.

The Office of Competition/DOE has examined the competitive process and structural aspects of the pipeline industry and has concluded that the industry would be effectively competitive in the absence of regulation. This general conclusion is based upon the following:

- Pipelines compete with other pipelines. Most areas are served by more than one pipeline. Even though concentration is relatively high in most markets, the competitive process still functions well because of other important factors.

- Pipelines to a great extent compete with other modes of transportation, such as tanker, barge, and to some extent truck distribution from nearby refineries. This sets a limit on how much pipelines can charge before a switch to an alternative will be made.

- Entry conditions are relatively easy and the two potential entry barriers, economies of scale and capital requirements, are relatively low. Thus, high concentration is undermined by the relative ease of entry into the industry.

- Pipeline operating costs create incentives to keep pipelines relatively highly utilized. In times of slack demand pipelines will be vigorous rivals to obtain volume to fill their pipelines in order to avoid increased per-unit operating costs. In times of high demand, however, this rationale becomes less important.

- Where pipelines do exhibit some limited market power, the costs are relatively minor when compared to crude oil and product prices. Pipeline tariffs in the lower 48 states average thirty cents to seventy cents per barrel compared to crude oil prices in the $30 to $35 per barrel range. Additionally, product markets, such as retail gasoline distribution, are highly competitive, limiting the ability of pipelines with market power to pass through higher costs to consumers.

While we are generally convinced that rate deregulation is appropriate, special situations may arise which warrant some different treatment. It may be the special case that will be singled out and used as the justification for not pursuing rate deregulation.

If so, a specific procedure to reimpose regulation could be utilized in a limited number of special cases. Such special cases would be limited to situations where monopoly power and resulting economic distortion is pervasive. Of course, in such situations under the normal incentives of economics, entry of competition would be expected and the agency's authority should be limited with this in mind. Aggrieved persons should be able to request an administrative hearing before the Federal Energy Regulatory Commission (FERC) where they would have the burden of proving why regulation should be reimposed. Because regulation is appropriate only where there is insufficient competition, the applicant should bear a meaningful burden of justifying reimposition of regulation. The standards to be used should be spelled out in the statute and not left to the discretion of the regulatory agency. We would be glad to work with the Subcommittee, after appropriate consultation with other executive branch agencies, to assist in developing such standards. The type of rate regulation used should not be the traditional form of rate regulation based upon the just and reasonable standard now used by FERC. The standard that the aggrieved persons would have to prove should be a market-based test. The rates of the pipeline in question should be compared with the rates of similar pipelines that were subject to competition. This procedure can be an effective mechanism to prevent any abuses that may stem from the monopoly power of a particular pipeline.

This concludes my oral presentation. I am available for any questions.

the Business Lawyer
November 1977
Section of Corporation, Banking and Business Law, American Bar Association Vol. 33 • No. 1

Section By-Laws xi
Committee Rosters xix
Chairman's Report 1

Articles

A Short Historical Perspective of Economic Controls in the United States .... Willard Z. Carr, Rex S. Heinke and Michael D. Ryan 3
Conversion of Savings and Loan Associations from Mutual to Stock Form: Fairness Forgotten .... Wayne M. Lee 29
Corporate and Tax Aspects of European Sales Subsidiaries: A Primer .... Lester S. Bardack and P. Bruce Wright 49
Research Tools in Customs Laws .... Mary L. Fisher 89
Netherlands Securities Laws .... Jan R. Schaapsma 101
An Initial Analysis of the Impact of Revised Regulation B on the Retailer and Bank Creditors .... Robert L. Geltzer and Alan R. Feldman 115
Should Section 9-307(1) of the Uniform Commercial Code Apply Against a Secured Party in Possession? .... Homer Kripke 153
The CFTC and Government Reorganization: Preserving Regulatory Independence .... Wayne D. Greenstone 163
Municipal Debt Adjustment .... Thomas E. Harvey 221
Exclusive CFTC Jurisdiction of Commodity Trading Vehicles May Depend upon Form Over Substance .... Sheldon I. Saitlin 241
Subscription Advisers, Blue Sky Registration and the First Amendment .... Michael E. Schoeman 249
Liabilities and Responsibilities of Corporate Officers and Directors .... Mendes Hershman 263

Reports and Programs

The First Code of Ethics for Arbitrators in Commercial Disputes .... Howard M. Holtzmann 309
Corporate Directors Guidebook: Comments Submitted by the American Society of Corporate Secretaries 321
Current Issues and Developments in the Duties and Liabilities of Underwriters and Securities Dealers—A Program by the Committee on Federal Regulation of Securities 335
Recent Developments Concerning Equipment Obligations—A Position Paper of the Committee on Developments in Business Financing 401
Present and Future Problems in Governmental Regulatory Proliferation—A Program by the Committee on the Year 2000 433
  Too Much Law: Our Natural Disease .... Bayless Manning 435
  Government Regulation–Is Regulatory Reform a Challenge or a Myth .... Edward C. Schmults 441
  I Have Seen the Future, and I Don't Like It .... Preble Stolz 449
  Panel Discussion 457

Reviews

Selected Articles on Corporate Law (Ed.: Charles F. Osborn and Arthur W. Schmultz) .... Richard O. Kummert 475
Small Issue Industrial Development Bonds (By Mark Rollinson) .... Henry Wheeler 479
Recent Literature 481

RECEIVED
JAN 13 1981
J. W. MARES

Too Much Law: Our National Disease

By BAYLESS MANNING[*]

ONE OF the advantages I have in speaking first is that I can set up the problem and tell you what I think causes it; my colleagues will tell you how to fix it. There was a certain amount of forethought in that tactic.

By any index or measure that you might choose to apply, our law is exploding. We are inundated by waves of new regulations, by judicial decisions, by legislation. Whole new areas of the law have sprung out of the ground overnight—environmental regulation is an example—and familiar areas like good old-fashioned property law have undergone a process of infinite fission. We have increasing numbers of statutory codes that are becoming increasingly particularistic; commercial law and taxation are two examples. The truth is, we are simply drowning in law.

All this law is irritating, annoying, and a nuisance. But I would like to suggest that it is much more serious than that and that a great deal more is at stake than the irritations we all feel as citizens and as lawyers in wrestling with this mass of material.

Too much law too fast, in my judgment, carries with it enormous long-term risks for the body politic. First, there is the simple matter of expense—expense of enforcement, the expense of compliance.

Next, quite visibly, increasing regulation is producing massive coagulation, embolisms in our legal process as a whole, clogging it and significantly impeding the availability and the distribution of justice.

There is no doubt that as the rate of new regulation increases, the prospect and the possibility of actual enforcement and enforceability decline correspondingly. That leads to a consequent opening for improper pressures (to express it charitably) or of petty official tyranny by those who are in a position to enforce law selectively.

Overregulation (I recognize the circularity of the term) is also stymieing, slowing down the implementation not only of private sector development, but also the implementation of social programs that we need but which we are not able to carry out effectively because of the overload of the circuitry.

Most seriously of all, too much law too fast, unequally enforced or simply not enforced at all, can only produce, and is producing, a gradual decline in the willingness of the public at large to assume voluntary compliance. It can only lead, I think, to a decline, or indeed, a loss of respect for the law itself—the underlying platform upon which every legal system must ultimately depend.

---

[*] Member, New York Bar. At the time of these remarks Mr. Manning was President of the Council on Foreign Relations; from 1964 until 1971 he was Dean of the Stanford Law School. These remarks are based upon a current law review article by Mr. Manning, *Hyperlexis, Our National Disease*, 71 N.W.L.R. 767 (No. 6, 1977).

My view is, in short, that the problem of too much law that we are discussing here today is very serious. I believe hyperlexis, as I call it, is a form of social illness that has a literally fatal potential for the operation of the American political system.

Well, if it is all that nasty and pernicious, then is it not clear that, in true-blue American style, we ought to roll up our sleeves, dive in and fix it? Why do we not do so? There are two answers to that question.

The first one is that only within a very recent period have we begun to recognize that we suffer from the disease of hyperlexis.

But the second reason is more important. In Pogo's immortal words, "We have met the enemy and he is us." There is a fair amount of talk around these days about the desirability of deregulation. I believe, however, that we are dealing with a multiple set of diverse forces at work that produce this consequence and that, regrettably, the illness that we suffer from is subtle and its causes are multiple. Behind the superficial term "overregulation" a number of quite different phenomena and forces are at work, most of which are deeply rooted in American society and in American attitudes.

I start with the most obvious factor, the federal system itself. Part of the problem obviously arises out of our layered federal system, which is certainly the most complex governmental system operation in the world. We maintain thousands of lawmaking instrumentalities, each of which merrily grinds out new law with little or no coordination among them. The tiers of our government have become very much more than the classical divisions of federal, state and local. They now, of course, involve counties, districts, varieties of regulatory authorities, regional authorities, functional commissions and the like in an endless proliferation. Moreover, we have not even begun to address effectively the interface coordination between federal regulation and state and local agencies. We have constructed, or are in the midst of building, a machinery of lawmaking that itself has an innate potential to bog itself down.

Next, I would point to four other factors which I group under the gross category of ideology. The first concerns our ideological perception of the proper subjects for government action. Classical American political thought conceived of a very small discrete area as the appropriate domain for governmental functions and considered the vastly greater balance to be allocated to private sector activities. In this century, obviously, the line between those two areas has been blurred, and indeed obliterated, in the minds of many citizens. This change in basic attitude about the relative function of government is itself one of the major forces behind the recent growth of regulation. Governmental regulation reaches out to cover more and more forms of citizen conduct, because, in part, there is no longer any widely shared perception of a political, philosophic legal barrier to inhibit or to contain that extension.

We are thus dealing with a fundamental shift in political attitudes.

The second subcategory under the rubric of ideology concerns equality of opportunity and egalitarianism. A part of the long historical thrust of the American dream has been that the Congress, the courts and many different lawmaking bodies have made a major effort—a major effort in recent years—to try to tilt more of the benefits of the society and of life toward groups that were seen as disadvantaged—ethnic groups, lower income groups, women, children, the elderly, the handicapped, and so forth. The major instrument we have used to try to achieve this redistribution, this tilt, is, of course, law—law regulating the nonminority in question and granting enforceable rights to the minority. In a great campaign to achieve equality of opportunity or even, as some voices would argue, equality itself, implementation of these laws has called for enormous increases in regulatory mechanisms, in surveillance techniques and in the decisional burdens that have been imposed upon the courts and the balance of the legal process.

Distributing the risks of life is the third item under the category of ideology. A significant contributor to the flood of litigation, regulations and legislation is a rising feeling among many members of the public today that the society as a whole should in some way compensate the individual for almost any loss he sustains. That is a political proposition, not an attribute of the legal system itself. How far we should go in trying to create a riskless society, a riskless life, at what cost, and who will pay for it, will be the major political issue in the United States for the balance of this century. However those issues are balanced out, the outcomes will be expressed in statutes, in regulation, and in lawsuits that will add to the inflated corpus of our law and further burden our legal institutional process.

My fourth and last ideology category is what I would call proceduralism and participationism. Surely, no society in history has been as concerned with procedure as has the United States. Our traditional concern for the individual, for fairness, for due process, has brought us to the point where almost any matter can be challenged and reviewed again and again and again at the instance of large cohorts of possible complainants through extended formal adversary proceedings and through procedural safeguards that were designed for, and once were limited to, heinous crimes. To this concern for proceduralism has been added of late an increasing trend to engage the participation of larger numbers of citizens in all issues of public interest. Extension of voting rights has been one manifestation of the reach-out to extend participation. Community action groups and self-styled public interest groups are others. Wider class actions and lower barriers to standing in court are still others. Proceduralism and participationism together multiply exponentially the burdens imposed upon the legal process by multiplying the numbers of potential litigants and clearance procedures surrounding any undertaking, and they are, indeed, designed to do exactly that.

Not all of the forces at work in our society to pile on law are embodied in those I have listed. There are some others. One of them has to do with the peculiar way in which the United States citizenry has always made use of its courts. Critics of President Johnson's "Great Society" described its basic principle as, "Identify a problem and throw money at it." But our true and peculiarly American trait was picked up by the inevitable de Tocqueville, who noted that the characteristic American trait is to identify a problem and throw a law at it. And that is what we do. Despite repeated disappointments, it continues to be almost universally accepted by Americans that legal resort is the most effective way to solve any problem.

Similarly, it has been a peculiarity of us as Americans, since the beginnings of the Republic, to turn to our courts for the resolution of problems that are, in most societies, solved in nonjudicial environments. The special role of the Supreme Court as the ultimate arbiter of constitutional questions enhances that impulse, but the peoples' faith and the reliance in its judges runs very much wider and very much deeper than that. Whether a matter concerns civil rights or town planning or the economics of the marketplace or labor management relations, or whatever, the judiciary in this country will play a key, and often a determining, role in resolving its outcome. The inevitable result is that we are the most litigious people in the world. We go to enormous lengths and we invest fantastic intellectual ingenuity in finding ways to cast any and every problem into the familiar pattern of a two-party adversary trial and take it to court.

Then there is the matter of interest group representation in our democratic pluralistic political system. Our representational system for decision-making is fundamentally built upon coalitions and trade-offs among elected representatives of interest groups. Though each one of us may say that he wants less law and less regulation, the fact is that every economic, ethnic, religious, or ideological group in this society wants *something* supported, regulated or banned by law. Every interest group does its best to capture the legislative, administrative and judicial system and to harness it to its own particular ideas of the good, the true and the profitable. Coalition voting patterns in our legislatures guarantee that these results will often succeed and that every year there will be a bumper crop of new laws.

Something should also be said about elected officials and scorekeeping. For elected officials, the most obvious route to reelection and perhaps even to immortality lies in new legislation. How many of us would remember Senator Sherman or Congressman Mann were it not for their Acts? As batting averages are to baseball players, stars to restaurants, ribbons to generals, and stock prices to corporate executives, so new statutes are at the heart of the scorekeeping system by which legislators are measured and measure themselves. No legislator ever gains reknown as a great non-law giver.

Next, I would mention the problem of overparticularization of our law. The national commitment to deal with the individual as an individual and to treat each case on its special merits combines with our political system of interest group representation to produce law that is often highly particularistic. Every group and subgroup seeks to obtain, and often succeeds in obtaining, special statutory provisions expressly aimed at its own particular circumstances. The result is an impenetrable legal jungle of special provisions. A significant part of the overregulation problem or the regulation problem arises from the effort to deal with problems with too great particularity. Contrary to surface impression, and, I think, public impression, detailed specificity in a legal provision does not reduce disputes. Particularization merely changes the vocabulary of the dispute. The most detailed statutes, like the Internal Revenue Code, are the ones that proliferate most rapidly and generate the greatest need for administration and the most disputes.

Technological and social change also play a part. It is a cliché to point out that the rate of change today has never been matched in the world's history. That fact, too, is a major contributor to the law explosion. Technological change often demands new public agencies, new programs unconceived before. The Atomic Energy Commission's recent transmutations through a series of steps into the Department of Energy is illustrative. Major technological change also inevitably brings with it substantial social and economic reverberations and dislocations in its aftermath. Increasingly, as a part of the risk distribution concept described earlier, it is coming to be accepted that the losses arising from such dislocations should not all have to be absorbed by those industries, workers, communities, and institutions that happen to be hit most directly by the change.

The implication of that statement is that, once again, an expanded function for the legal and administrative process is introduced in an effort to distribute that loss. Analogously, major social change, such as Black migration from the South, tends to lead to new social problems and wider governmental activity.

The biology of bureaucracy itself is an independent factor. As spiders by their nature utter cobwebs and spawn spiders, administrative agencies by their nature utter regulations and spawn more administrative agencies. Administrative agencies and programs are remarkably hardy. They are capable of surviving virtually any effort to uproot or cut them off. Growth in legal activity would not be so difficult to accommodate if old agencies died off as new ones appeared. But alas, the process does not work that way. Old laws and old agencies neither die nor fade away. Being nonbiodegradable, they only accumulate.

Finally, I close this catalogue with a point that may be functionally more important than all the others put together. It is a negative point. In our legislative and judicial process and our administrative system, there are no internal forces at work that tend to *counter* the pressures I have just listed. There are no factors internal to the system that tend to act as inhibitors or governors on the law-generating process. And externally, the same is true. Untold thousands of interest groups work unceasingly to add to, amend or delete particular laws, but there is *no* major interest group at work that is concerned to maintain the health and workability of the legal order as a whole. Nobody is in the legal *systems* business.

It is, therefore, no wonder, as I see it, that the law-making engines of the United States grind out legal prescriptions like the fairy tale salt mill at the bottom of the sea, unremittingly and in ever-increasing volume. There are many powerful forces deep in our society and in our own fundamental philosophic attitudes that push in that direction and there are no significant forces tending to resist it.

I would like to close by reciting a little pentalogue—a half a decalogue—that I have concocted. Each of these five propositions could be elaborated upon, but time forbids. These five statements, it seems to me, are profoundly true, but we all, as American citizens, tend to act as though they were not true. In the long view, the only ultimate solution to the problems of too much law is for the American people to learn to carry these five propositions permanently in their hearts and minds. Here are the five:

> To declare a law is very cheap; to administer or enforce a law is very expensive.
>
> The secondary costs of a law are often greater than the direct costs.
>
> The capacity of law to change human behavior is very limited.
>
> Even where a law may effectively achieve its primary purpose, the side effects may be too great and too negative to permit or warrant its adoption.
>
> Many problems are not amenable to legal solutions at all.

We Americans act as though regulatory law were an all-purpose instrument, free of negative side effects and, in the economist's term, a free good. Our legislators, judges, administrators and the public—all of us—must come to understand that law is in fact an instrument of limited utility, is always accompanied by significant, and frequently harmful, side effects, and that it is very expensive. A great deal of public education would be required to bring about such a change of attitude in the teeth of the set of underlying political, philosophic impulses that have animated the Republic for 200 years.

PETROLEUM PIPELINE DEREGULATION:
A COMPETITIVE ANALYSIS

Prepared by

Leonard L. Coburn
Acting Director
Office of Competition

Assistant Secretary for Congressional,
Intergovernmental and Public Affairs
U. S. Department of Energy

May 1982

CONTENTS

Page

I. INTRODUCTION 1

II. PETROLEUM PIPELINE INDUSTRY CHARACTERISTICS. 2

- A. Industry Statistics 2
- B. Pipeline Ownership. 3

III. EVOLUTION OF PETROLEUM PIPELINE REGULATION 5

- A. Federal Regulatory Authority Extended to Pipelines. . 5
- B. Statutory Authority Over Petroleum Pipelines. 7
- C. Rate Regulation Under ICC 8
  - 1. General Statutory Authority. 8
  - 2. Rate Regulation. 10
- D. Rate Regulation at FERC 12
  - 1. Williams Pipe Line Company 12
  - 2. Trans-Alaska Pipeline System 13
  - 3. Rate Regulation Alternatives 14

IV. DEREGULATION OF PETROLEUM PIPELINES. 16

- A. Why Regulate? 16
- B. Benefits and Costs of Regulation. 19
  - 1. Benefits of Regulation 20
  - 2. Costs of Regulation. 25
- C. Competition Issues. 28
  - 1. Corridor Markets 30
  - 2. Four-Arrangement Approach. 31
    - a. Crude buying markets. 31
    - b. Refinery crude purchasing markets 32
    - c. Refinery product sales markets. 36
    - d. Product consumption markets 39
- D. Common Carrier Issues 47
- E. Regulation of Trans Alaska Pipeline System. 50
- F. Other Cases 54

V. CONCLUSION 56

TABLES. 57

FOOTNOTES 66

PETROLEUM PIPELINE DEREGULATION: A COMPETITIVE ANALYSIS

I. INTRODUCTION

The petroleum pipeline industry is at a regulatory crossroads. Down one road lies the path heavily trodden in the past; the road of regulation. Down the other road lies a way less traveled, but one that is gaining more and more adherents, the road of deregulation. The time is propitious since the Federal Energy Regulatory Commission (FERC) as well is at a crossroads. Before it lies the choice of pursuing the road well worn, or the road less traveled by, since the entire issue of petroleum pipeline regulation is now pending before it.[1] Which road FERC takes, and which road the Congress can take, can make all the difference to the petroleum pipeline industry, to the petroleum industry, and to the nation.

This paper proposes that the road less traveled by be chosen. The case for pipeline deregulation is strong and should be tested now since pipeline regulatory choices are under consideration. This paper looks at the petroleum pipeline industry in general, describing its characteristics. It describes the evolution of the present regulatory structure. It discusses the choices now available to FERC and to the Congress. Finally, it examines the deregulation option and concludes with the reasons why deregulation ought to be tried now.

II. PETROLEUM PIPELINE INDUSTRY CHARACTERISTICS

The petroleum pipeline industry essentially is an invisible industry since the overwhelming portion of its facilities are buried beneath the earth. Despite its invisibility it is a substantial carrier of intercity freight, representing about 24 percent of total 1977 intercity freight.[2]

A. Industry Statistics

The interstate petroleum pipeline network is extensive, estimated at about 227,000 miles of pipe.[3] [Private carriers[4] are estimated at about 16,000 miles and gathering lines[5] are estimated at about 67,800 miles.[6]] The industry normally is compartmentalized according to the type of liquids transported, that is, crude,[7] refined products,[8] and liquid petroleum gases/natural gas liquids.[9] The 227,060 miles of petroleum pipelines, therefore, consist of 145,770 miles of crude pipelines, 63,700 miles of refined product pipelines, and 17,590 of LPG/NGL pipelines.[10]

Pipeline mileage does not tell the whole story about pipeline transportation because the capacities of the pipelines vary substantially. Capacity of a pipeline normally is considered to be the volume of liquid that can be moved through the pipeline between two points during a given time period using existing equipment.[11] The capacity of a pipeline is dependent upon a number of variables, the most important being pipeline diameter, pipeline length, pumping equipment in place, locational differences, pipeline topography, viscosity, temperature, and gravity of the liquid being pumped.[12] Because of the wide capacity variations among pipelines, another measure has been used to indicate differences among pipelines other than length, namely, the barrel-mile. This measurement indicates the number of barrels that can be shipped through one mile of pipeline in a given time period. The barrel-mile measure, therefore, is the product of multiplying the capacity of the line by the length of the line.[13] Barrel-miles for the petroleum pipeline system is in excess of 4 trillion barrel-miles [4,068,906,850] divided into 2.4 trillion crude barrel-miles and 1.7 trillion refined product barrel-miles.[14]

Crude and product flows through the pipeline system tend to be monodirectional.[15] The major crude flows are from the Southwest to the Gulf Coast and to the Central and Upper Midwest, and from the Gulf Coast to the Central and Upper Midwest. These flows represent the natural distribution pattern from the crude producing fields in Texas, Louisiana, New Mexico, and Oklahoma to the major refining complexes along the Gulf Coast, and Central and Upper Midwest.[16] They also represent the major crude flows of imported crude to inland refineries, predominantly from the Gulf Coast to the Central and Upper Midwest. A comparison of refinery receipts of both domestic and imported crude oil by types of transportation will illustrate these flows more dramatically.[17]

Refined product flows from the Gulf Coast to the Southeast and Northeast, with some movement from the Gulf Coast to the Central and Upper Midwest.[18] For the movements to the East Coast, pipelines accounted for about 68 percent, while tankers and barges accounted for about 32 percent. For the movements to the Midwest, pipelines accounted for about 77 percent, and tankers and barges accounted for the remaining 23 percent.[19]

B. Pipeline Ownership

The petroleum pipeline industry is highly integrated. Most of the systems are owned by oil companies; only a small number of pipelines are owned by companies not otherwise affiliated with the oil industry (denominated independents). The industry also is significantly jointly owned, that is, there are a substantial number of pipelines owned or operated by more than one oil company.

In a recent study by DOE,[20] 147 pipeline systems were identified, 88 were owned by majors, 36 were owned by nonmajors, and 23 were owned by independents.[21]

DOE's study also considered pipeline ownership based upon barrel-miles. For 114 pipeline systems the majors accounted for 91.03 percent of total barrel-miles, nonmajors for 2.48 percent, and independents for 6.09 percent.[22] The predominance of the majors is indicated also by examining the market shares of the top firms in the industry. The four largest systems, all owned by majors, comprise 51.14 percent of total barrel-miles. Of the eight largest firms, seven are owned by majors. While these eight systems comprise 66.74 percent of total barrel-miles, the one independent has a 2.03 percent share, so that the seven majors comprise 64.71 percent. Of the twenty largest firms, majors comprise sixteen. The twenty largest represent 83.84 percent of total barrel-miles with the majors accounting for 77.28 percent of that total. In addition, jointly owned systems comprise a significant portion of the total barrel-miles. Of the twenty largest systems, eleven are jointly owned and operated; these eleven account for 62.86 percent of total barrel-miles. If all jointly owned lines are considered, this total would be increased to 75.09 percent of total barrel-miles.[23]

III. EVOLUTION OF PETROLEUM PIPELINE REGULATION

A. Federal Regulatory Authority Extended to Pipelines

The oil industry came into being in the U. S. on August 27, 1859, when Colonel Edwin Drake brought in the first oil well located near Titusville, Pennsylvania.[24] The petroleum pipeline industry was not far behind, the first successful pipeline was completed in October 1865 by Samuel Van Syckel.[25] By today's standards this pipeline was a rather sorry affair, consisting of a mere two inch diameter line running six miles. But its success started a series of events that made the ownership of pipelines one of the most important aspects in the struggle for control of the oil industry.

The early struggle for transportation dominance existed between railroads and pipelines.[26] Pipelines were used to transport crude from the producing fields to rail bulkheads, where the crude was transferred to the railroad for long distance shipment. By the mid-1870s, long distance pipeline transportation became a reality and the struggle for transportation control shifted to pipeline ownership as rail transportation became of lesser importance.[27]

John D. Rockefeller recognized the importance of controlling crude production fields through ownership of the means of transportation. He used control first of railroads and then of pipelines to further his goal of dominating the oil industry. Rockefeller at first used the rails to transport crude from the fields to his refineries in large consuming areas. He offered the railroads large volume shipments of crude oil in return for favorable rates. Railroads were played off against each other and a system of rate favoritism was maintained. As pipeline transportation proved itself, Rockefeller used gathering lines to transport crude to the railheads and later was able to build or acquire pipelines that ran parallel to the railroads as a further method of maintaining his competitive advantage. The control over pipelines became the major factor that permitted Rockefeller and his Standard Oil Trust to achieve its dominant position over the oil industry during the late 1800s.[28]

During this same period, the railroads were exerting their power through the establishment of railroad monopolies, abusing competitors through various rate schemes.[29] President Theodore Roosevelt capitalized upon these abuses and requested the Congress to extend the Interstate Commerce Commission's (ICC) power to set maximum rates, to eliminate rebating and to extend ICC's powers generally. In 1906, Representative William P. Hepburn introduced the legislation requested by the President.[30]

The Hepburn bill became the vehicle for attacking the powers of the Standard Oil Trust. Senator Henry Cabot Lodge offered an amendment to the Hepburn bill to extend ICC powers to oil pipelines. The Lodge amendment stirred an enormous amount of controversy. Its supporters argued that pipelines ought to be common carriers and that the abuses perpetrated by the Standard Oil Trust and documented by the Bureau of Corporations (the predecessor agency to the Federal Trade Commission) ought to be brought under federal control. Its opponents argued that pipelines were merely plant facilities of refineries and that, unlike railroads, they ought to remain in the private domain of their owners. Furthermore, they argued that there should be no ownership separation between the operation and ownership of the goods transported.[31]

The result of the countervailing forces was the passage of the Hepburn Act on June 29, 1906, extending common carrier and rate regulation to petroleum pipelines, but not requiring any divorcement of ownership from the goods transported.[32] Each side claimed victory and in truth each had achieved a measure of victory. Petroleum pipelines now for the first time in their 41 years of operation were designated common carriers. A federal agency was given authority to set maximum rates for the transportation of oil through pipelines. The oil industry could claim, however, that integrated operations could continue since divorcement of operations was not required. Thus, the pattern established by the Standard Oil Trust, that is, of integrating backward into pipeline operations to control producing fields, could be continued by other companies either starting anew or growing as a result of the Standard Oil divestiture decree of 1911.[33]

B. Statutory Authority Over Petroleum Pipelines

The Hepburn Act amended the Interstate Commerce Act (ICA) which is the statutory authority over petroleum pipelines.[34] Section 1(1) of ICA provides:

> The provisions of this chapter shall apply to common carriers engaged in . . .
>
> (b) The transportation of oil or other commodity, except water and except natural or artificial gas by pipelines, or partly by pipeline and partly by railroads or water.

The most important regulatory provisions of ICA require that all pipelines: charge just and reasonable rates for their service;[35] provide and furnish transportation upon reasonable request;[36] establish reasonable through routes with other carriers;[37] and establish just and reasonable rates for through transportation.[38] Authority is granted under ICA to establish just and reasonable rates either for single carrier transportation or for through transportation.[39] Pipelines cannot receive rebates,[40] cannot make or give unreasonable preferences or advantages to shippers,[41] cannot charge more for a short haul than for a long haul.[42] Tariffs for rates and service must be filed with the Commission.[43] The Commission can conduct investigations and hearings upon complaint or on its own initiative.[44] It can suspend newly filed rates up to seven months pending investigation.[45]

The Commission has no power to require certificates of public convenience and necessity prior to the commencement of operations. Pipelines do not need Commission permission to abandon or terminate service. The commodities clause of ICA does not apply to common carrier pipelines, nor do provisions regarding the extension of credit, nor those concerning merger, consolidation, common control, or interlocking directorates. The Commission cannot order extension of lines nor can it order pipelines to provide facilities needed to provide adequate service such as storage or tankage for terminal operations.[46]

C. Regulation Under ICC

Regulation under ICC could be characterized as one of benign neglect. ICC did little to enforce its authority, other than to establish general principles under which the industry has operated.

1. General Statutory Authority

ICC initiated action to define its authority shortly after the passage of the Hepburn Act.[47] ICC directed pipeline operators to file with the Commission schedules of their rates and charges for the transportation of oil. The pipeline operators resisted on the ground that they were not common carriers, since their practice was to purchase oil in the field and to transport only that oil which they owned. With one exception the Supreme Court in The Pipe Line Cases sustained ICC's assertion of authority over the pipelines, ruling that the pipelines were common carriers subject to the requirements of the Interstate Commerce Act.[48] The Court held that the evident purpose of the statute "was to bring within its scope pipe lines that although not technically common carriers yet were carrying all oil offered, if only the offerors would sell at their price."[49] Only one exception was made to this general ruling, known as the Uncle Sam exception, for a pipeline engaged solely in transporting oil from its wells across a state line to its own refinery for its own use.[50]

A series of other cases ensued over the years which further delineated ICC's authority over pipelines. These cases appear to support the following conclusions:

- An interstate petroleum pipeline which holds itself out to transport petroleum or its products for others, or which purchases petroleum from others for shipment in its own lines, is a common carrier for all purposes.[51]
- An interstate petroleum pipeline which connects producing and refining facilities which are under common ownership with the pipeline is not a common carrier for any purpose.[52]
- An interstate petroleum pipeline which ships its own refined products and no others, between its own refinery and its own terminals, interconnecting with no other pipelines, is a common carrier for reporting purposes, but not for tariff and rate purposes, at least where there is no demand by others to use the pipeline.[53]

Besides these few efforts by ICC to establish the contours of its regulatory authority, the greatest portion of ICC's regulatory efforts relating to petroleum pipelines has been concerned with valuation.[54] The valuation procedure, initially responsive to constitutional requirements that utility rates be fixed in relation to the "fair value" of the utility's property, is now archaic.[55] Yet ICC continued using valuation practices eliminated in the case of most other regulated companies as a consequence of the Hope decision of 1944.[56]

2. Rate Regulation

Through this somewhat circuitous route, we arrive at the activities of ICC in the area of rate regulation. It was not until 1940 that ICC expressed an opinion on the reasonableness of rates for petroleum pipelines. Reduced Pipe Line Rates and Gathering Charges dealt with the issue of the rates of 35 companies engaged in the transportation of crude oil gathering and trunkline systems.[57] The systems under review essentially were considered plant facilities by the Commission, that is, the shipper and owner were the same company, transporting oil purchased in the field over pipelines owned or affiliated with the company refining the crude oil. ICC found that despite the lack of independent shippers the rates were unreasonable since the rates were "not made with any relation to the cost of service (or) the benefits directly derived from common-carrier operations."[58] ICC adopted as its standard of reasonableness for pipeline rates the ability of the carrier to earn 8 percent on the valuation of its crude oil pipelines.[59]

ICC found that 14 of the respondents were not earning more than the 8 percent standard, but that the earnings of the remaining 21 were excessive.

Therefore, ICC entered an order requiring these 21, within 60 days, to show cause why they should not reduce their existing rates, on a pro rata basis, to come within the 8 percent limitation. No order was entered regarding the reasonableness of any particular rate or rates since no evidence had been taken with respect to particular rates.[60]

The reasonableness of rates on product pipelines was considered by ICC in Petroleum Rail Shippers' Association v. Alton and Southern Railroad.[61] ICC had under consideration the specific rates of two pipelines and determined that for refined petroleum pipelines rates should be established based on valuation and a rate of return of 10 percent.[62]

In another rate related case of the 1940s, ICC considered the reasonableness of the rates on several crude pipelines.[63] ICC relied upon the valuations of the pipelines where available and used the 8 percent rate of return standard espoused earlier in Reduced Pipe Line Rates.[64]

ICC did not consider rate issues for pipelines again until a complaint was filed in 1971 by a group of midcontinent shippers.[65] ICC, in examining the rates of a product pipeline, Williams, found that the pipeline's earnings were in conformity with its standard established in the Petroleum Rail Shippers' Association case.[66] While ICC did provide some explanation of how it determined the reasonableness of its rates, it did not examine the reasonableness of Williams' rates on particular movements since they had not been challenged, although the complainants had challenged the reasonableness of Williams' joint rates with another carrier, Explorer. ICC rejected any claims that the joint rates were unreasonable.[67]

ICC's decision was appealed to the Court of Appeals for the D.C. Circuit which severely chastised ICC for the manner in which it established the reasonableness criteria for pipeline ratemaking.[68] After taking ICC to task for its out-of-date methodology, the Court remanded the proceeding because in the interim the Department of Energy Organization Act transferred jurisdiction over pipelines from ICC to FERC.[69] The Court acceded to FERC's request that it be given a chance to reexamine the entire ratemaking methodology for petroleum pipelines.

D. Rate Regulation at FERC

The experience at FERC so far has been limited to a thorough reevaluation of pipeline ratemaking methodology. While FERC has continued using the regulatory scheme inherited from ICC, FERC has been reevaluating the entire system of rate regulation in the context of two proceedings, Williams Pipe Line Company,[70] and Trans Alaska Pipeline System.[71] A brief description of these two proceedings will place the overall regulatory dilemma into sharper focus.

1. Williams Pipe Line Company

The Williams proceeding commenced under ICC's regime in 1971. It led to a reaffirmation of ICC's traditional ratemaking methodology and resulted in a strong repudiation of ICC's methodology by the Court of Appeals for the D.C. Circuit. As a result, upon transfer of the case to FERC, FERC held a hearing in the fall of 1979 in which 15 parties participated, presenting 49 witnesses and over 8,000 pages of testimony. The Commissioners have sat through two oral arguments on the case, the first on June 30-July 1, 1980, and the second on November 19, 1981. A decision by the Commission has been promised shortly.[72]

The issues, although somewhat complex, can be distilled into two primary factions. The petroleum pipelines have argued that ICC's methodology

7

has worked well, so why tamper with it. In the words of one oil pipeline advocate, "if it ain't broke, why fix it." The other faction, composed of the midcontinent shippers, the Departments of Energy and Justice, and the staff of FERC, has urged that ICC's methodology is out-of-date, inconsistent with legal principles established over the past 40 years, and is not working well. Some other regulatory mechanism must be established, especially in light of the Farmers Union case.[73]

On the oil pipeline side, the advocates have urged that the hybrid methodology used by ICC is consistent with present law, and even if the exact formula used by ICC has some difficulties, it can be corrected without abandoning the entire process. This they urge would provide a workable solution, without transforming present regulation radically while permitting a smooth transition to FERC's regulatory regime.[74]

On the opposing side, the advocates have urged that sound regulatory principles require the abandonment of ICC's hybrid methodology and the use of the more modern ratemaking methodology of original cost, or some variation of original cost. This methodology has met with approval by the courts, by most regulatory commissions at the state level, and permits ease of regulation with minimum burden.[75]

The resolution of these issues is an important one for the industry. The mode of regulation affects rate of return, the trend path of rates over time, and the incentives to invest in new pipeline facilities.[76]

2. Trans Alaska Pipeline System

The opening of the Trans Alaska Pipeline System (TAPS) engendered a heated battle over the reasonableness of the rates filed by its owners. Upon the filing of the rates, the State of Alaska and the Department of

Justice joined the fray over the rates. After a court determination that ICC had the power to suspend the rates and investigate their reasonableness a thorough examination of their validity ensued.[77]

The hearing concerning the rates on TAPS also was transferred to FERC in 1977. The hearings were held in 1978 and part of 1979, producing almost 24,000 pages of transcript, 947 exhibits, and the testimony of 82 witnesses. On February 1, 1980, an Administrative Law Judge issued an initial decision, rejected the valuation methodology and relied on the original cost methodology instead.[78] The decision was appealed to the Commission, oral argument was heard on July 1, 1980, with no resolution of the issues to date.

Again, the issues concern the continued use of ICC's methodology versus some more modern ratemaking approach, such as original cost. Although the overall issues are similar to Williams, the context in which they arise is different due to the unique nature of TAPS, its high transportation cost versus the wellhead cost of the crude oil, and the impact on the royalties paid to the State of Alaska.[79] Another aspect of TAPS is that it may indicate that FERC is willing to impose a different mode of regulation on a pipeline with unique characteristics.

3. Rate Regulation Alternatives

The alternatives to FERC are several. It could continue ICC's regulatory approach. This would mean continuation of a hybrid methodology based on valuation with industry-wide rate of return guidelines. Pipeline-by-pipeline regulation would be avoided, except in unusual circumstances.

It could change to an original cost approach, or some variation of original cost. Here it has two major regulatory approaches. It could impose a tight form of regulation, similar to its regulation of natural gas pipelines, examining the rates of each and every pipeline subject to its jurisdiction. Or it could impose a lighter form of regulation, indicating what the new methodology is, establishing a rate of return guideline for the industry, and avoiding individual consideration of rates unless warranted by complaint of shippers or FERC staff.

A tight form of regulation would impose substantial costs on FERC and the industry. The benefits to be derived from such tight regulation are speculative at best.

No matter which way FERC goes in the present situation, it must live within its statutory mandate to impose some form of rate regulation on the industry. The most direct and unambiguous route is for the Congress to solve the rate regulation morass. Rate regulation can be eliminated by an act of Congress. The following analysis explores the considerations attendant to such an action.

IV. DEREGULATION OF PETROLEUM PIPELINES

The question most often asked in the debate over deregulation of petroleum pipelines is, why deregulate? The essential question, however, is the obverse, why regulate? If regulation cannot be justified, then it should not be continued. This requires an understanding of why regulation was imposed initially, the costs and benefits of regulation, and the efficiency and competitive considerations of regulation.

A. Why Regulate?

Regulation of petroleum pipelines initially was justified to prevent abuses of monopolists such as the Standard Oil Trust.[80] The vital nature of pipelines as a tool to control the oil industry was recognized early in its history. The extension of common carrier obligations to pipelines was legislated in order to make sure that pipeline owners could not earn unreasonable profits from their pipeline control. Therefore, regulation was aimed at the monopoly power of the pipelines, and its imposition was an attempt to control the exercise of this monopoly power.[81]

The monopoly power of pipelines could be exercised through control over service or rates. Early regulation was aimed at both--guarantees of access, control over the level of rates, and their use in a discriminatory manner. Rates and access had to be regulated to assure equitable treatment.

This is a traditional justification for regulation: the natural monopoly conditions or the natural monopoly characteristics of the industry must be controlled since market forces will not work well to ensure competitive results. Regulatory commissions have been created to assure that the beneficial results of competition can be replicated through a regulatory regime.[82]

Pipelines fell within this justification because of their natural monopoly characteristics.[83] They exhibit substantial economies of scale so that average costs continue to decline over the entire range of output. Essentially, this means that the economic ideal is for one pipeline to serve an area in order to maximize efficiencies. Since no other pipeline would be built, the argument goes, regulation must be imposed to make sure that the pipeline monopolist does not exploit its monopoly power through denial of access, other service discrimination, or through rate exploitation.

While it is clear that pipelines do have natural monopoly characteristics, it is unclear whether pipelines can exercise monopoly power. There are at least three ways a pipeline's monopoly power could be exercised: (1) charging prices that are higher than competitively determined prices; (2) discriminatory use of existing pipeline facilities; or (3) deliberately constructing pipelines that are smaller than the economically efficient size in the long run.

Taking the last first, pipeline undersizing caused by underconstruction of pipeline facilities has been alleged by some, including the Department of Justice, to be used by pipelines as a means of avoiding rate regulation and as a means of exercising monopoly and market power.[84] This theory rests on the notion that integrated oil companies have an incentive to undersize their pipeline facilities so that they can exercise market power in the upstream or downstream markets served by the pipeline and in which the oil companies participate. For example, a pipeline owner that markets gasoline in a market served by the pipeline has an incentive, so the argument goes, to undersize the pipeline so that the marginal barrel of gasoline sold in the downstream gasoline market is priced based on a higher cost transportation mode. The gasoline marketer which uses the pipeline will reap an economic rent because it can charge a gasoline price based upon the higher-cost transportation alternative, pocketing the rent garnered because it used a lower-cost pipeline. For this strategy to be successful, the pipeline owner must be a significant participant in the downstream market, the pipeline's throughput must comprise a significant share of the downstream market, and the pipeline's transportation cost must be lower than alternatives serving the market.

This undersizing theory was expounded in several case studies issued by the Department of Justice.[85] It was uncertain whether the theory was considered to be generally applicable until DOE issued a report using empirical data covering all jurisdictional pipelines over an extended period of time.[86] That report found generally that pipelines have not been undersized. While in a few instances capacity problems were demonstrated, the causes were varied, such as a shift in Canadian export policy which altered midcontinent transportation patterns. Therefore, the undersizing theory is not borne out by empirical evidence. Moreover, the theory postulates that undersizing would be used as a device to avoid rate regulation. If rates are deregulated, that rationale for resorting to such a practice disappears.

The second way monopoly power can be exercised is through the discriminatory use of existing pipeline facilities. This is essentially a concommitant of the exercise of monopoly power using the price charged for the service (see next paragraph infra). As with such power over prices, an examination of the competitive process will determine the ability of pipelines to engage in discriminatory practices.

Lastly, pipelines could exercise their monopoly power by charging prices for transportation services that are higher than competitively determined prices. The ability of pipelines to engage in these practices can be determined by examining the competitive process within which they operate. Assuming for the moment that pipelines could exercise this form of monopoly power, what is to be gained by regulation?

B. Benefits and Costs of Regulation

Regulation often is justified because the monopoly power of pipelines will lead to a misallocation of resources.[87] In an unregulated market, the firm can profit by raising pipeline transportation rates above the level that will yield a normal rate of return. The economic consequences of higher than competitive rates are that the end user in some regions will face higher prices and will transfer income to oil companies or transporters, creating consumption patterns that will be economically inefficient while total resources are misallocated. Alternatively, in some regions oil producers will face lower netback prices and therefore will produce at an economically inefficient rate. The economic consequences, therefore, can affect either consumers, shippers, or producers, or some combination.

The magnitude of these efficiency losses depends upon the elasticity of demand for pipeline services, which in turn depends upon the elasticity of final demand in the product market, the availability of alternative pipeline transportation, the potential for constructing a new pipeline, and the availability of alternative modes of transportation, primarily waterways and to a lesser extent rail or truck.

Each of the factors affecting elasticity of demand reflects the competitive structure, behavior, and performance of the industry. If the industry is not competitive, pipelines will be able to extract an economic rent in the absence of regulation. A careful review of the status of the industry relative to these factors is required to determine whether the industry is competitive and therefore to decide whether economic regulation is appropriate. These will be discussed later in this paper.[88]

1. Benefits of Regulation

There are three potential benefits from eliminating any potential monopoly power of pipelines through regulation. First, regulation can eliminate the economic rent garnered from other segments of the industry, namely, producers or consumers (both shippers and ultimate consumers). Second, regulation can eliminate the losses in social welfare or efficiency caused by prices that are higher than the competitive level, and leading to suboptimal production and consumption. Third, regulation can eliminate the ability of pipeline owners to use their monopoly power to control other markets.

The first justification put forth by supporters of regulation is the ability to eliminate economic rent. (Actually, this rent is not eliminated but is redistributed.) How does this rent occur in the first place? In a competitive environment, rates would be the lowest consistent with a reasonable return on investment, taking into account the opportunity cost of alternative investments.[89] The producer would have no ability to maintain higher rates over the long run since as new entry occurs rates would fall back to the competitive level. If pipelines do have natural monopoly characteristics, and the industry does not conform to the competitive market, they have some control over the ability to set rates, even with free entry. As a result, rates on pipelines will tend to rise to the level of the next least costly alternative, but no higher, since shippers will shift to that alternative and abandon the pipeline. Assuming pipelines are less costly, and in some instances they are less costly than the alternative,[90] the owners of the pipelines will accrue a sum in excess of the competitively determined rates, an economic rent.

The consequences of this result are several. From a crude oil producer's point of view, higher pipeline transportation rates mean lower wellhead prices, and therefore a decreased incentive to produce, assuming that the transportation cost cannot be passed through downstream because of the existence of competitive markets. Thus, one direct effect of deregulation can be lower crude oil production. Another effect can be that consumers of petroleum products are paying more for their products than desirable, assuming the ability to pass through some higher costs. Either consumption will decrease caused by switching to some other alternative, or consumer costs will rise due to the inability to switch. The ultimate consequence from both perspectives is that crude oil production and petroleum consumption are not at optimal levels, leading to a less than optimal allocation of resources.

The question then is, is it realistic to assume that these efficiency consequences, if they exist, are large and that regulation is worthwhile? With respect to the crude oil producer, it is questionable whether unregulated rates will lead to less crude oil production. First, transportation costs are very small relative to the wellhead price of crude oil, except in Alaska. With crude oil prices in the $35.00 per barrel range and average pipeline transportation costs for the lower 48 states in the $0.30 to $0.70 range, the production disincentive is small, if not nonexistent.[91] Pipeline rates may rise with deregulation and, therefore, the question is whether the costs of regulation outweigh the transfer of wealth from oil producers to pipeline companies. Although this seems to imply purely a wealth transfer, there may be some losses along the way so that efficiency concerns are involved and not merely equity concerns.

Second, many oil producers also are pipeline operators and owners. In this instance, the production disincentive disappears entirely, since pipeline rates become meaningless. The oil is shipped at cost no matter what the rate is, since the rate is purely an accounting transfer and nothing more to the producer-transporter. This is somewhat over-simplified since the transfer cost may not be at the appropriate level based on a profit maximizing strategy taking into account the opportunity cost of the service, that is, what others would be willing to pay.

Deregulation, however, may have one side effect that has nothing to do with efficiency, namely, alter the revenues collected by the federal government under the windfall profits tax.[92] The crude oil windfall profits tax is calculated as a percentage of the difference between the wellhead price of crude and a base price. The cost of transportation directly affects the wellhead price, since increased transportation costs reduce wellhead prices. The base price, however, is not affected. Thus, an increase in transportation costs in the lower 48 narrows the difference between the wellhead price and the base price so that the crude oil windfall profits tax liability is reduced. Depending upon the ability of pipeline owners which also are crude producers to raise pipeline transportation rates, independent producers may be affected substantially. For the latter, higher transportation rates are real out-of-pocket costs, but they also lower wellhead prices and lower crude oil windfall tax liability.

The crude oil windfall profits effect is one-sided with respect to North Slope crude. When the tariffs on the Trans Alaska Pipeline System (TAPS) go down, changes occur both in the wellhead price and the base price. The wellhead price decreases due to the netback effect, the base price decreases also because the crude oil windfall profits statute requires an adjustment to the base price of North Slope crude oil when the TAPS tariff decreases.[93] If tariffs go up, however, no adjustment is made to the base price. Therefore, there is a one-sided incentive from the crude oil windfall profits tax to shift costs between the wellhead and the pipeline.

In the case of Alaska, however, there are other incentives to shift costs between the wellhead and the pipeline. The primary owners of the pipeline also are the primary producers on the North Slope.[94] Increases in pipeline rates will lower wellhead prices since the final price of North Slope depends upon a competitively determined landed price on the West Coast. Higher transportation costs cannot be passed through downstream, but are reflected upstream in lower wellhead prices. Lower wellhead prices, in turn, will mean lower royalty payments to the State of Alaska. Therefore, North Slope crude oil producers can maximize their overall earnings by keeping wellhead prices low and raising pipeline rates. For the owners of both crude and pipeline this becomes an internal transfer. But for the crude producers with no pipeline ownership, this can become a real disincentive to produce, since the pipeline cost represents about 18 percent of wellhead prices ($6.20 pipeline tariff versus $35.00 wellhead price).[95]

The effect on the consumer of increased pipeline rates is more difficult to determine. In 1979, total pipeline revenue was about $5.78 billion, with about $2.74 billion attributable to TAPS.[96] This leaves about $3.04 billion in revenue for the lower 48 states. If regulation keeps prices 20 percent lower than without regulation, total wealth transfer would approximate $600 million. While this is a significant sum, it translates into about 8.4 cents for every barrel of liquid carried in the system or 0.2 cents per gallon of liquid carried.[97] If deregulation meant a 100 percent increase in rates, the per gallon impact would be one cent. In some cases the wealth transfer may be from producers to pipelines rather than from consumers to pipelines. The effect would be incalculable.

Another benefit derived from regulation is the gain in efficiency or social welfare. Rates that are above costs lead to suboptimal allocation of resources, which not only produce the income transfers indicated above, but actual deadweight losses to society.[98] One estimate puts this loss at about 12.7 million per year, a rather small sum.[99] Thus, the benefits of regulation in this instance appear minimal.

The other form of efficiency loss from increased pricing is the misutilization of pipeline facilities. It would take the form of mis-sizing the pipeline in the first instance or underutilizing the pipeline once built. Initial mis-sizing could lead to overall higher transportation costs if higher cost alternatives must be used. Underutilization of existing facilities could lead to higher unit costs, since at some point unit costs rise dramatically as throughput falls off.[100] Quantifying these costs would be impossible.

Finally, regulation could be a means of eliminating or dampening the ability of pipeline owners to use their market power to control other markets. The argument here is that a small number of oil companies control the markets for petroleum products. If this is the case, then these companies already are profit maximizing through their present control of refining and marketing. Lifting pipeline rates will not add to this profit maximizing price. Higher rates may shift the profit among the various industry segments.

The companies also may exert some measure of control over crude purchasing. This control probably exists now anyway since it is rare that more than one pipeline serves a producing field.[101] Thus, higher rates may transfer some profit from producers to transporters, with little effect on production. Furthermore, if rates increase too much, there may be some incentive for a new gathering system to enter the field. Therefore, deregulating pipeline rates is unlikely to add to any existing control oil companies may have over downstream or upstream markets.

2. Costs of Regulation

On the other side of the issue, regulation can impose substantial costs. First, there are the administrative costs associated with regulation, which tend to increase as the specificity of regulation increases. Second, regulation tends to distort investment decisions if it imposes a rate of return that is too low. Third, regulation can create managerial disincentives to keep costs to their minimum.

It is clear from experience that any form of regulation imposes administrative costs, both those related to supporting an administrative oversight organization and those related to industry compliance with regulatory requirements. In fiscal year 1981, FERC spent about $7.5 million on petroleum pipeline regulation. This, however, does not account for increased regulation of rates now under consideration. It is not unreasonable to expect that the upperbound of oil pipeline regulatory costs would be similar to those for gas pipelines.[102] In fiscal year 1981, FERC spent about $23.6 million on gas pipeline regulation.[103] The regulatory expenditures incurred by the industry and other interested parties must be included also. One estimate indicated that this regulatory expense was at least equal to the expense of FERC.[104] More than likely, this expense will exceed those of FERC by a substantial portion. Thus, direct administrative costs will be about $48 million per year.

The second cost of regulation is the distortion caused by improper investment decisions because regulation may result in rates of return that are too low. In this situation, the pipeline industry may refuse to invest in new capacity to meet new demand. Or the industry may invest only when no other alternative is available. The costs of such investment distortions are incalculable, but could be very high.

The likelihood that FERC will establish a rate of return below the cost of capital is high. Present experience with the electric utility industry indicates that the percent rate of return for investor-owned utilities is substantially below market costs of capital.[105] The Secretary of Energy has called for a rate of return at least four percentage points higher.[106] With pipelines differing from electric utilities in terms of not being franchised public utilities with an obligation to provide service, it is highly likely that private investors will not be willing to invest in new facilities. This is especially so in view of the common carrier requirements and the free rider problems that result.[107] The trade-off is one of having no new facilities with the ensuing higher costs associated with alternative transportation modes, or new pipeline facilities that earn some limited economic rent due to their monopoly characteristics. In this situation, the costs clearly outweigh the benefits of regulation.

Finally, regulation creates a disincentive for pipeline management to keep costs low since under a regulatory regime all costs can be passed along. If regulation permits, and in essence guarantees a fair rate of profit that can be passed through to ratepayers, the incentive to keep costs as low as possible disappears. The only remaining incentive is created by regulatory lag in granting rate increases or rate reductions when costs change. Until rates are changed to reflect changes in costs, the utility has the incentive to keep costs down and enjoy a short-lived increase in profits. But this incentive is very short-lived, while long-run incentives tend toward less efficiency and technological innovation. With pipeline revenues approximating $3 billion per year (excluding TAPS), a small percentage increase in costs could be substantial, a five percent increase amounting to $150 million per year.

Before concluding this section concerning the desirability of regulation or deregulation, the last question that must be addressed is the competitive process within which the industry operates. If it is clear that the industry is noncompetitive, then the economic rents that could be garnered by the industry may be substantial. If the industry faces some competition, then the economic rents and inefficiencies would be dampened or eliminated. This aspect of the industry will be discussed next.

C. Competition Issues

The competition issues depend upon the structure of the oil pipeline industry, that is, how they are owned, by whom, the level of concentration, and the conditions of entry. These issues, in turn, depend to a large extent upon the availability of alternative methods of transportation (water, truck, and rail) and upon interpipeline rivalry. To the extent that waterborne alternatives and interpipeline rivalry exist, the monopoly power of pipelines is dampened or eliminated. Therefore, the monopoly power of pipelines can be dampened or eliminated in several ways: through competition with alternative transportation methods; through interpipeline rivalry; through regulation; and through the structure of the industry (levels of concentration and conditions of entry).

Competition analysis is undertaken through the use of an analytic methodology that relies upon the structure, behavior, and performance of an industry.[108] Structure is indicative of the ability and likelihood of firms in an industry to act independently or interdependently. The concentration of the firms in the industry is an aspect of structure that yields an objective criterion from which subjective judgments can be drawn. The conditions of entry, another aspect of structure, play an equal, if not paramount role, since high concentration can be undermined through entry. The behavior of firms in the industry often follows from the industry structure and indicates its competitive or anticompetitive tendencies. Industry performance is examined to determine whether the industry yields competitive or noncompetitive results, e. g., are profits at or above competitive levels.

Industry structure is analyzed in the context of product and geographic markets.[109] The major criterion used to determine product markets is the degree of substitutability among products. In this instance, the relevant product market is the transportation of crude oil and refined products.[110] In many short-haul markets, transportation alternatives exist among various types of transport modes, namely, pipeline, barge, tanker, truck, or railroad.[111] In long-distance transportation, however, the market is usually limited to pipeline and waterborne alternatives (barge and tanker), since the costs of railroad and truck are so high that they do not represent long-term alternatives.[112] Therefore, the focus will be upon petroleum transportation by pipeline and water.

Geographically, transportation markets are much more difficult to delineate. Some studies have focused upon national transportation markets.[113] A national geographic market leads to meaningless results, since transportation is regional, at least. For example, transportation entities in California do not compete with like entities on the East Coast.

Others have focused upon particular regions to discuss competition.[114] The Piercey study used the five Petroleum Administration for Defense Districts (PADD) as geographic markets. Again, this may be too broad, since transport entities in one part of the PADD may not compete with entities in other parts of the PADD. In support of this approach, however, one could argue that this is the best level for data, and the industry traditionally has broken itself down into these areas and consider them acceptable geographic markets. But rigorous geographic determinations would reject these aggregations and therefore something better must be used.

Another approach is to examine the transportation services available between areas, a corridor approach to transportation markets. This approach has been criticized as being too limited since it may not indicate the entire range of options at either the origin or destination.[115] For example, a refiner in Houston could send its product via one group of pipelines to the East Coast, or through another group of pipelines to the Midwest. Or buyers at destination points may have pipelines from more than one corridor at their disposal.

Finally, a recent attempt to define markets focuses upon four types of buying-selling arrangements: those for buying crude, those for selling crude at the refinery, those for selling products at the refinery, and those for selling products to consumers.[116]

This paper uses several approaches in order to determine the competitiveness of the industry. It will rely upon the four-arrangements approach, the corridor approach, and some modifications of the two.

1. Corridor Markets

The corridor approach focuses upon groups of pipelines primarily from producing areas to refining areas. One recent study identified 10 crude corridors.[117] For products, the focus is upon groups of pipelines from refining areas to consuming areas. In the same recent study, five product corridors were identified.[118] These corridors include not only pipelines, but water transportation also. In reviewing the corridors identified in DOE's study, the number of crude corridors were overstated, so that in retrospect there should be seven or eight corridors. Using the data gathered for DOE's study, concentration ratios based upon capacity can be derived for these corridors. Table I indicates these concentration ratios. It should be noted that in several instances more than one pipeline owned by the same company is included. The reason for this is that often there is more than one routing even though both are owned by the same company.

Aggregating these routings according to companies would change the concentration ratios.

The concentration ratio results indicate that in most of the corridors four-firm and eight-firm concentration is high. In only one of the corridors does the four-firm concentration ratio fall below 50, the cutoff usually referred to as indicating high concentration. This same market also has an eight-firm concentration ratio of less than 80. In most of the other markets, four-firm concentrations exceed 70 and eight-firm concentrations exceed 90. One is tempted to conclude from this that the structure of the industry, at least based upon concentration ratios, indicates anticompetitive tendencies. This conclusion cannot be reached yet for several reasons. First, water transportation has not been factored in and, second, entry barriers have not been discussed. A third consideration is the utilization of this capacity and how it affects incentives to compete. These considerations will be discussed after the discussion of the four types of buying-selling arrangements approach.

2. Four-Arrangement Approach

The four-arrangement approach, that is, reducing the industry into four component parts, has been developed very recently and the findings have not been examined in any depth. The four components discussed were those for buying crude, those for selling crude at the refinery, those for selling product at the refinery, and those for selling products to consumers. Some examination of these components is necessary to determine the competitiveness of the pipeline industry.

a. Crude buying markets: Crude gathering markets were delineated on a state basis, for no other reason than that was the only data available. Whether these areas can be considered markets is open to substantial question; however, there is no better way to delineate them given the data available.[119] In the seventeen states where receipts by interstate pipelines accounted for more than 75 percent of total crude production, four-firm concentrations ranged from 48 percent to 100 percent, with a weighted average at 64 percent. The major problem with this data is that intrastate pipelines have not been included. This may alter substantially the concentration ratios since in many states intrastate pipelines are significant gatherers. For example, Permian gathered about 5.2 percent of 1974 Texas production and was the seventh largest gatherer in the State.[120] Scurlock pipeline also operates an extensive gathering system and gathered about 2.6 percent of total 1974 Texas production, the eleventh largest gatherer in the State.[121] Even with intrastate gathers, however, and using the Judiciary Committee data, pipeline concentration ratios remain high and tend to indicate the existence of monopsony power on the part of crude oil gatherers.

b. Refinery crude purchasing markets: Refinery crude purchasing markets were grouped by Hansen into 39 separate refinery markets where refining capacity exceeded 50,000 barrels per day.[122] A determination was made based upon the ~~location of~~ the refineries in each market whether they could receive crude by water.[123] A further determination was made using a map to determine the number of pipelines serving each refinery market. The Hansen study concluded that in the most important refinery markets, water transportation was available to compete with pipeline transportation. Also, in most of those markets a substantial number of pipelines were available to compete with each other. The study concluded that this segment of the industry was competitive, or that the availability of waterborne transportation would erode any potential competitive problem with pipeline transportation.[124]

The analysis used in the Hansen study is flawed. First, the number of pipelines was examined without considering their capacity. Concentration, therefore, could not be analyzed. Also, the visual inspection of the number of pipelines available in any location is not always a good indicator of whether capacity is available into the market since the pipeline may not actually serve the market. Second, the study assumed that, if a refinery market was located on a major waterway, waterborne transportation was available as a viable competitor. This inference is improper since data exist to determine whether a state receives crude by water. Finally, too many refinery markets were delineated, since in many cases, the areas were too narrowly drawn.

The foundation laid by the Hansen study can be augmented by using capacity data of individual pipelines.[125] Using this data, concentration ratios can be calculated based upon the 39 markets delineated and on a smaller number of markets that may make more economic sense. Also, using other data, an accurate determination can be made whether the refinery market receives crude via water.

Using the capacity data where available,[126] 24 of the markets had pipeline capacity in excess of refining capacity, three had no pipelines at all, only water, and seven had refining capacity in excess of pipeline capacity. For these seven markets, however, waterborne transportation was available, pipeline capacity caught up in later years, or data were incomplete. Thus, overall, there was at least a balance between refinery capacity and pipeline capacity and more often than not pipeline capacity exceeded refinery capacity.

The second step in using the capacity data is to determine concentration ratios for the 34 markets. The weighted average concentration ratios for the 34 markets are 79.29 and 90.39 for four and eight firms, respectively, both very high and indicative of anticompetitive structural tendencies. In only one market, the Midland-Odessa area, did four-firm concentration fall below 50.

The Hansen study, too, indicated that refinery markets were highly concentrated, but indicated that many were located on major waterways. This ability to receive crude by water provided ample competition to dampen any potential monopoly power on the part of the pipelines, Hansen concluded. Hansen found that of the 39 markets, eighteen lie on major waterways. The eighteen represented about 78 percent of the refinery capacity of the 39 markets. But using DOE data indicating receipts of domestic and foreign crude by mode, actually only thirteen of the eighteen markets receive crude by water. Importantly, two of the top twelve markets do not receive crude by water or only negligible amounts.[127] While Hansen generally is correct, his overall conclusion is not as strong.

Finally, Hansen identified too many markets because he included too many markets where only a very small number of refineries operated served by one or two pipelines. An example is Catlettsburg, Kentucky. There is only one refinery located there, Ashland, and served by one pipeline, owned by Ashland. But a careful examination of the pipeline system indicates that Ashland has several alternatives available to it for receiving crude using a number of different combinations of pipelines. All must go through the Ashland pipeline to Catlettsburg, but that pipeline can receive from a number of different pipelines.

Perhaps a better approach is to examine major interconnecting points on the system, that is, points where many pipelines enter and then radiate out. Refineries ultimately served by one or two pipelines (usually owned by that refinery) can receive crude from various sources at the interconnection point. The interconnection points may be stated as follows: West and Northwest Texas (including Midland, Odessa, Wichita Falls, Corsicana, Teague, and Wortham, Texas); Longview, Texas; Houston-Port Arthur, Texas; South Louisiana; Cushing, Oklahoma; Patoka, Illinois; Chicago, Illinois; and Fort Laramie, Wyoming. From these major interconnection points the smaller refinery markets can receive crude. The number of pipelines serving each of these areas is substantially larger than the number of pipelines serving most of the 39 markets indicated by Hansen. Moreover, in each of these markets capacity is considerable. Concentration ratios for them are much more like the concentration ratios for the corridors identified earlier than for the weighted average ratios identified using the 39-market approach.

What becomes clear using this interconnection approach and relying upon existing data is that the major refinery complexes that ring the coastal areas of the country are served both by pipelines and by waterborne transportation, except for the Pennsylvania-Delaware-New Jersey area, which is served exclusively by water. Any potential pipeline monopoly power in these markets, and the potential is substantial, is ameliorated by the existence of crude arriving by water. It is the interior of the country that relies principally on pipelines, since negligible amounts of crude arrive by water. While these markets are served by a large number of pipelines, it is also true that the capacity available is highly concentrated in a small number of pipelines, often owned in an interrelated fashion.[128]

c. Refinery product sales markets: The Hansen study utilized a similar approach to its refinery product sales markets as in its refinery crude purchasing markets. It utilized the 39 markets; however, Hansen was able to find state-wide data indicating receipts of product by product pipelines. Thus, he was able to indicate concentration ratios for the states in which the 39 refinery markets were located. Relying upon this data, Hansen calculated the weighted average four-firm concentration ratio for the 27 states at 74.6, with the range from a low of 60.13 to a high of 100.[129] Without considering waterborne transportation he concluded that concentration of the receiving pipelines is extremely high. But since about 75 percent of refinery capacity is located on significant waterways, he concluded that waterborne transportation is available to ameliorate any potential pipeline monopsony power.[130]

Hansen's approach in this market is better than his approach in the crude selling markets since he does have some state-wide data available. One minor flaw, however, is that he aggregated both refined product pipelines and LPG/NGL pipelines. Rarely do refined products and LPG/NGL liquids use the same pipeline. A better approach would have been to segregate the two types of pipelines in order to obtain a clearer picture of pipeline monopsony power.

The same DOE data used in the crude selling markets is available to examine the refined product sales markets. In the 39 markets delineated by Hansen, refinery capacity exceeds pipeline capacity in 21, while pipeline capacity exceeds refinery capacity in 18. This is less of a problem than it appears. In many of the markets where refinery capacity exceeds pipeline capacity, the market is located in or near large metropolitan areas or adjacent to navigible waterways. Therefore, the need for pipeline capacity is reduced since deliveries can be made locally by truck, or can be made to waterborne entities. Similarly, for many inland refining areas where refinery capacity exceeds pipeline capacity, truck transportation plays a large role in relatively short-haul deliveries. Therefore, the existence of more areas with greater refinery capacity than pipeline capacity is easily explained and may not result in a competitive problem.

Where pipelines do exist (in 36 of 39 markets) the weighted average concentration ratios are very high.[131] Four-firm concentration is 79.62 and eight-firm concentration is 95.81. The four-firm concentration ratios range from 64 to 100.

The same kinds of problems exist in the 39 refinery product selling markets as outlined in the 39 refinery crude purchasing markets. Some attempt has been made to group the pipelines into corridors. With product pipelines, however, there are fewer recognizable corridors. There appear to be at least five major corridors, three thin corridors and a massive maze that is difficult to define as a corridor. The major corridors identified are the Gulf Coast-South and Northeast, Linden-Philadelphia-Delaware-west, Texas Gulf Coast-north, Cushing, Oklahoma-north and west, and Cushing, Oklahoma-north and east. The massive maze is the upper midcontinent. The three thin corridors are the upper Great Plains, the West Slope of Cascades, and California.[132]

In the major corridors, concentration is high. Only two pipelines comprise the Gulf Coast-South and Northeast corridor, Colonial and Plantation. For the other corridors the breakdown is as follows: Linden-Philadelphia-Delaware-west, six pipelines with four-firm concentration of 93.78; Texas Gulf Coast-north, seven pipelines with four-firm concentration of 89.95; Cushing-north and west, ten pipelines with four and eight-firm concentration of 80.65 and 96.59, respectively; and Cushing-north and east, four pipelines. (See Table II)

The maze of the upper midcontinent has not been broken down into concentration ratios because the systems criss-cross through the area producing no definable pattern. In the thin corridors no more than two pipelines exist in any one of them, except for California. (See Table II)

Finally, it is possible to develop the same type of major interconnection analysis used in the crude pipeline section. The major interconnection points would be the Louisiana-Texas Gulf Coast-north and northeast, Cushing radiating in all directions, the Linden-Philadelphia-Delaware refinery area radiating west and north, and the upper midcontinent area. While more systems would be added to the ones indicated in the corridor analysis, concentration still would be high. For example, the lines radiating out of the Louisiana-Texas Gulf Coast would mean aggregating the Gulf Coast to the South and Northeast and the Texas Gulf Coast-north. This would yield nine pipelines radiating out of the area, with four-firm concentration of 92.79 and eight-firm concentration of 99.48. Similar manipulations could be made for other areas; however, the concentration ratios would remain very high.

Two ameliorating factors are present. The first is the availability of water transportation and the second is the greater reliance upon trucks for product transportation. The percentage of products carried on waterborne commerce is somewhat greater than the percentage for crude. The Association of Oil Pipe Lines indicates that almost half of the ton miles of products carried in domestic commerce is carried by water carriers, while only about 41 percent of crude is so carried.[133] Furthermore, there are more water terminals for products than for crude so that some refining centers that do not receive crude by water do distribute or receive products by water.[134]

Secondly, truck transportation plays a much larger role in product distribution than in crude collection and distribution. Almost two and one-half times as much product than crude are carried by truck.[135] In fact, on a tonnage basis, truck transportation almost equals pipeline transportation. The distance disparity is apparent when ton-miles are compared. Here, water carriers rank first, pipelines rank a close second, and trucks a distant third. Since many refineries are located near large consumption areas, pickups by truck at refineries are substantial (if tons are compared) while the distance traveled is small compared to pipelines (if ton-miles are compared). Therefore, even with high pipeline concentration, transportation choices by many refiners are not limited to only pipelines. This imposes some upper limit on the ability of pipelines to exert their apparent monopsony power.[136]

d. Product consumption markets: The Hansen study relied upon Standard Metropolitan Statistical Areas (SMSAs) as the basis for market definition. Given that most products are sold locally, and that there is little opportunity for consumers to obtain products other than on a local basis, this characterization is appropriate. Hansen examined 61 SMSAs with population in excess of 500,000. Twenty-eight markets were located on significant waterways. The remaining 33 were subject to varying degrees of transportation alternatives, either from rival pipelines, or nearby refineries.[137]

Whatever monopoly power may exist in these markets is strongly tempered by the highly competitive nature of many of the product consumption markets. Gasoline, the largest of the markets under consideration here, is highly competitive.[138] Transportation problems do not appear to stymie the competitive forces in the gasoline market. It is doubtful that the inland markets served by one or two pipelines will be any less competitive if pipelines were deregulated.

The focus in this section has been on one aspect of structure, namely concentration. While concentration is an important indicator of the ability of firms to act in an interdependent manner, it is not the only predictor. The other aspect, which many state is more important, is the nature of conditions of entry.[139]

The conditions of entry are important because if it is easy to enter the industry the effect of high concentration can be undermined by new and potential entrants. Potential competitors can impose substantial limits on the ability of existing firms to exert market power. If entry conditions are relatively difficult (if substantial barriers to entry exist), then high concentration is important since the market power it indicates will not be undermined easily by new and potential entrants.[140]

Entry into the pipeline industry is not restricted by regulation in the sense that a certificate of public convenience and necessity must be obtained from a regulatory agency. While environmental permits may be necessary, these are not the types of entry barriers that are usually associated with a regulated industry, nor do they usually prevent the entry of pipelines into the industry.

As pipelines are built into more environmentally sensitive areas, however, the difficulties associated with obtaining the necessary environmental permits may increase. For example, the proposed Northern Tier Pipeline, from Port Angeles, Washington, to Clearbrook, Minnesota, has been delayed for a number of years because of the need to obtain approximately 1,400 permits, including many environmental permits. The pipeline now faces a particularly difficult obstacle since the Governor of the State of Washington has denied an environmental permit for the pipeline because its route crosses under Puget Sound, an environmentally sensitive area. Another example of environmental difficulties existed with TAPS which necessitated the passage of special legislation to expedite the environmental permitting process.[141]

Environmental permits may take on an attribute of a barrier to entry. While most writers think of a barrier to entry in terms of the cost advantage an industry member has over the potential entrant,[142] they often neglect the importance of legal restrictions. For example, a legal restriction, such as an environmental permit, although costing the same to industry members and new entrants, may become a barrier to entry if new entrants cannot obtain one because the permitting authority refuses to grant more.[143] In this instance, entry may be impossible.

Pipelines must obtain rights-of-way in order to be built. The ability to obtain these rights-of-way may turn into an entry barrier if the same kind of reasoning applicable to environmental permits is applied to rights-of-way.[144] In the past the acquisition of rights-of-way has not been a serious problem. Many states have eminent domain laws giving the pipeline the power to condemn private land for use as a right-of-way.[145] Even with eminent domain authority securing the right-of-way may be a time-consuming task.[146] Eminent domain authority does not exist at the federal level; however, its nonexistence has not precluded extensive pipeline construction.[147] For pipelines which cross federal lands, the Secretary of the Interior controls the permitting process.[148] While the Secretary has the right to attach various conditions to the permit, it has not been an obstacle to entry into the industry. On the whole, while the theoretical existence of a legal restriction in obtaining the necessary right-of-way is possible,[149] in practice few, if any, pipelines have been stymied because of the lack of rights-of-way.[150]

While entry is not regulated, two conditions of entry can make the pipeline industry relatively difficult to enter by nonoil companies because they give existing companies a substantial advantage over new entrants. One is economies of scale and the other is access to capital.

Pipelines exhibit substantial economies of scale. This means that as the size of the pipeline diameter increases, throughput increases geometrically while unit costs increase linearly. Thus, as throughput rises, unit costs decrease throughout the entire range of pipeline diameters.[151]

This implies that a new pipeline constructed to compete with existing pipelines must be of sufficient size to utilize the economies of scale inherent in pipelines. This means that sufficient volume must be available before a new pipeline will be built; otherwise the new pipeline will not enter if it cannot cover total cost. Since existing pipelines can expand more cheaply than new pipelines can be built up to some limit, this imparts an advantage to existing industry members. Furthermore, the new pipeline may have to enter at a size that is too large for the present market, thereby lowering the prices that can be charged by all industry members, which may forestall entry until the market grows sufficiently. Counterbalancing this advantage to existing industry members is that existing pipelines, in general, are not very big relative to the size of the market, so that new pipelines may not have to overcome substantial scale economies of existing pipelines.[152] While scale economies could be a barrier to entry, the proliferation of pipelines over the years is one indicator that entry into the industry has not been forestalled due to this factor. Whether this will hold for the future is less certain, because of the existence of a new generation of large diameter pipelines, and because the need for new pipelines is small given the slow growth in demand.

The second entry condition that may pose a barrier is access to capital. Pipelines are highly capital intensive, requiring substantial amounts of money initially in order to construct the pipeline. Operating costs once the pipeline is built and sufficient throughput is available are low by comparison. Financing of pipelines traditionally has been done either internally by the oil company for wholely owned lines (or undivided interest lines) or by the signing of throughput guarantees when joint ventures are involved.[153] Throughput guarantees represent long-term commitments by the shipper-owner to use the pipeline at a certain level or cover all of its share of the operating and interest costs. These guarantees are highly valued by the investment community since they reduce the risk element substantially. Independent companies unable to obtain such guarantees face greater problems in arranging financing. Therefore, oil company-sponsored pipelines have an external financing advantage over independently owned pipelines. Internal financing is on an equal footing, however. Therefore, depending upon the size of the pipeline and the need for external financing, nonoil companies may be disadvantaged in obtaining throughput agreements usually needed for financing, and in their ability to obtain capital.

Entry theory recently has focused not only on the ability to enter an industry but also the ability to exit an industry.[154] This evolution of entry theory, which is part of what has become known as the theory of contestable markets,[155] posits that for an industry to be perfectly contestable entry must be free and exit absolutely costless. Free entry is used not in the sense that entry is costless or easy, "but that the entrant suffers no disadvantage in terms of production technique or perceived product quality relative to the incumbent."[156] Additionally, exit must be free and costless which means "that any firm can leave without impediment, and in the process of departure can recoup any costs incurred in the entry process. If all capital is salable or reusable without loss other than that corresponding to normal user-cost and depreciation, then any risk of entry is eliminated."[157]

Since the above analysis indicates that entry into the pipeline industry is relatively free, the next question, then, is whether the pipeline industry permits free exit, that is, is exit costless, or are there costs associated with exit that impose entry barriers. Of course, it must be borne in mind that perfect contestability, like perfect competition, is merely a model against which economists measure the real world. Thus, absolutely free exit may never exist, but relatively free exit may be the optimum.

The issue, then, for the pipeline industry is not only whether entry is relatively easy, but also whether exit is relatively easy. In examining this question it is important to bear in mind whether costs are sunk costs, or merely fixed costs.[158] For example, airplanes might be individually costly; however, the costs are not sunk since their mobility from market to market and their ability to be resold makes the fixed cost unimportant as an entry barrier to a particular route.[159] An airport terminal, however, may be not only a fixed cost, but a sunk cost, since its mobility is limited and its resale value uncertain.

Pipelines are characterized by high fixed costs, namely, the costs associated with buying pipe and related facilities and initial construction. Whether these costs are also sunk costs is an open question that requires additional investigation. Some considerations can provide insight. For small pipeline systems, such as gathering lines, it is relatively easy to reuse the pipe for other gathering systems. The gathering pipelines usually are not buried, or if they are buried, it is in shallow ditches. Thus, the salvage value is high. For larger systems, the salvage value is highly uncertain. It may be impossible to take the pipe out of the ground because of the enormous expense involved or because of environmental or other reasons. The pipeline can be resold, however.

Additionally, the right-of-way may be valuable not only to other petroleum pipelines, but to other types of pipelines, such as natural gas or coal slurry. For these larger lines, there is relatively little experience in industry exit since, overwhelmingly, the lines remain in service. More data and investigation are required to answer this question and to determine whether the fixed costs associated with pipelines truly are sunk costs and whether exit is relatively costly or costless.

Entry conditions, therefore, may pose a barrier in some instances, but generally it may be concluded that the barriers are not substantial nor insurmountable. High concentration ratios, therefore, are less of a problem because of the relative ease with which other companies can enter the industry, and perhaps exit the industry.

Finally, a last consideration is the incentive to keep pipelines utilized. While operating costs of a pipeline are relatively low, at some point of utilization the unit cost of throughput starts to increase dramatically. In large diameter pipelines this point is at about 50 percent of utilization.[160] Therefore, these pipelines have an incentive to use at least 50 percent of their capacity; otherwise, unit costs become substantial and impose severe transportation penalties. In times of weak demand this means that rivalry among pipelines for volume increases. Logically, pipelines would have few or no incentives to increase prices to a monopoly level since this may drive away potential users of the line. The demand for pipeline services relative to pipeline capacity therefore becomes an important factor in keeping pipeline rates competitive.

In high demand periods, other factors come into play. If the pipeline is full and deregulated, the pipeline rates may rise as a method of allocating space. With regulation, space is prorated while rates remain the same. It is more efficient to permit price to be the allocator of space, since that method will account for all costs, including opportunity costs.

D. Common Carrier Issues

The previous section indicated that market forces can ensure competitive rates and reasonable rates of return in a deregulated environment; however, other parts of the Interstate Commerce Act may embroil FERC in similar rate regulation. As a result, it is necessary to eliminate the applicability of those provisions to petroleum pipelines. A simple method for accomplishing this result is to delete petroleum pipelines from the common carrier requirements of ICA. The following are indicative of some of the problems if common carrier requirements are continued.

The antirebate provisions of ICA prohibit a pipeline from paying one shipper to use the pipeline without also paying other shippers.[161] These provisions created a problem for a pipeline owned by an oil company also shipping in the pipeline, if the shipper-owner received a dividend as a return on its investment. The question raised is, are dividends rebates?[162] The U.S. charged in a series of cases filed on September 30, 1940, that dividends paid to shipper-owners were rebates and violated the Elkins Act.[163] Due to the exigencies of World War II, the cases were settled on December 23, 1941, through a consent decree that permitted pipelines to pay a dividend of 7 percent on the valuation of the pipeline. The settlement of these Elkins Act cases became known as the Elkins Act Consent Decree, or just the Consent Decree.[164]

The Consent Decree has provided an upper limit on rate of return for pipelines, but it also has provided an incentive to alter the capital structure for pipelines so that they use small proportions of equity and high proportions of debt. This skewing of the capital structure occurs because the valuation methodology upon which the dividend limitation is based allows for recovery of interest expenses separate from the normal recovery through the allowed percentage rate of return.[165] As a result, many pipeline stock companies have only 10 percent equity and 90 percent debt.

Recently, the Department of Justice has moved to vacate the Consent Decree.[166] If the Consent Decree is vacated, what is the status of dividends paid by the pipeline to shipper-owners? Do they become rebates subject to the prohibitions of the Elkins Act? The Department of Justice has taken the following position:

> The theory of the complaint [Elkins Act cases] was that any dividend or other payment made by a pipeline company to a shipper-owner not equally available to a non-owner-shipper constituted an unlawful rebate. This theory, however, is not consistent with the requirement that the owners of a regulated private business are entitled to fair compensation for the use of their assets employed in the venture. See, e. g., Federal Power Commission v. Hope Natural Gas Co., 320 U. S. 591, 603 (1944) ("Hope"). Under the Interstate Commerce Act and other federal regulatory statutes, regulated enterprises are entitled to charge "just and reasonable" rates, see, e. g., 49 U.S.C. § 1(5), and these have been defined by the Supreme Court to be rates which will yield sufficient revenue to cover both operating expenses and the "capital costs of the business", including "service on the debt and dividends on the stock". Id. Thus, if revenues are lawfully collected under Section 1(5) of the Interstate Commerce Act. 49 U.S.C. § 1(5), dividends paid from those revenues would pass muster under the Elkins Act, even if paid to shipper-owners.[167]

Thus, in a regulated environment, dividends which fell within the permissible returns on investment established by Hope would not be considered rebates and would not violate the Elkins Act.

Would this logic apply to a deregulated environment? There is no rational reason why it should not. The complication, of course, is that what may be considered a reasonable return in deregulated industry may not be considered reasonable in a regulated industry. There is a substantial potential that FERC may become embroiled in the same types of issues that are now before it in Williams and TAPS if nonowner-shippers complain to FERC that the dividends paid by pipelines to shipper-owners appear unreasonable.

Another question related to continuing common carrier requirements is whether other words in ICA would provide a mechanism for challenging monopolistic rate practices in a deregulated environment. For example, do the terms undue or unreasonable preference, advantage, prejudice, or discrimination provide a method of challenging unreasonably high rates?[168]

The discrimination term has been used to mean charging one shipper a higher rate for similar shipments to the same destination.[169] ICC has found with respect to a challenge by nonowner-shippers alleging that the payment of dividends to owner-shippers was an unjust discrimination and undue prejudice, that a dividend payment that fell within ICC's determination of reasonableness will remove any unjust discrimination and undue prejudice.[170] This seems to imply that rates yielding returns above ICC's determination of reasonableness would be unjustly discriminatory or unduly prejudicial.

These examples demonstrate that maintaining their applicability to petroleum pipelines would create new regulatory burdens on FERC.

E. Regulation of Trans Alaska Pipeline System

The previous sections indicated that competition in the petroleum pipeline industry justifies deregulation. The sweep of this conclusion must be tempered concerning TAPS. Market forces are not sufficient to sustain competitively determined rates. Therefore, TAPS should remain subject to regulation.

TAPS is the only transportation system from the North Slope of Alaska to Valdez, located in Southern Alaska, where ocean tankers can transport the crude oil elsewhere. It is owned in an undivided interest basis by eight major oil companies, namely, Amerada Hess, Arco, BP, Exxon, Mobil, Phillips, Sohio, and Union.[171] Three of the eight, Arco, BP/Sohio, and Exxon, which own about 90 percent of the pipeline, also are the largest owners of the Prudhoe Bay Field on the North Slope.

TAPS should not be deregulated because competition will not reduce or eliminate the monopoly power inherent in the pipeline. The owners can adversely affect many interests, including independent crude oil producers, nonowner-shippers, the State of Alaska, and the nation.

One argument raised by the owners of TAPS is that because it is operated as an undivided interest line, with eight separate tariffs, it functions as if eight separate lines existed within one physical facility. This is true to some extent. In times of slack demand, there may be intense rivalry among the eight owners to fill each's portion of the line. One example of differences among the eight occurred when tariffs were filed initially, the rates for transportation ranged from a low of $6.04 to a high $6.44. This range has been extended to a low of $5.30 because Exxon had to lower its tariff due to Consent Decree limitations.

There are several considerations, however, that mitigate this rivalry. First, the three principal owners of TAPS are also the principal owners of the Prudhoe Bay Field, and other areas on the North Slope. The incentives of these owners appear to be to maintain higher transportation rates and lower wellhead prices due primarily to the tax structure. They maximize their profits through higher transportation rates. As a result, profit maximization may override the incentives to compete for transportation services. Second, in a tight market the rivalry among the eight owners is likely to disappear since TAPS is the only method of transporting the crude and the pipeline will be full anyway. In the tight market situation the monopoly power of the pipeline could be used to set rates above a competitive level. This is a very real possibility that puts TAPS into a special category.

The interests of crude oil producers, shippers, the State of Alaska, and the nation are involved. High transportation rates will mean lower wellhead prices, since the markets within which Alaskan crude is sold can be considered competitive, preventing the passthrough of high transportation costs. The high transportation costs, instead, will translate into lower netbacks at the wellhead. Since TAPS' tariffs are a large part of the wellhead price, about 20 percent, the wellhead impact can be substantial. Lower wellhead prices affect incentives to explore for and develop oil. Not only is there the interest of crude oil producers but a substantial national interest in maintaining incentives for North Slope exploration and development in order to reduce imports. Undiscovered petroleum resources in Northern Alaska may be substantial particularly in Beaufort and Chuckchi Sea regions. The U. S. Geological Survey's current mean estimate of undiscovered recoverable reserves in Northern Alaska, both offshore and onshore is 15.2 billion barrels, more than six times the cumulative production to date in Northern Alaska.[172] As a result, Northern Alaska has excellent prospects for future oil development under existing and proposed outer continental shelf lease sales. The Naval Petroleum Reserve in Alaska is one such prospective area which may be adversely affected as bids for leases may be low reflecting the bidder's high cost that must be paid for using the pipeline. Alternatively, little or no interest may be shown in these federal lease sales, except by pipeline owners.

Nonowner-shippers, which can be considered consumers of transportation, are affected by changing tariffs. They are better off as rates go down and worse off as rates go up. For them, the rate is the real cost of transportation, since there is no dividend to lower the nominal tariff rate. Owners complain that nonowner-shippers are free-riders, that is, they make no investment but have all the rights of owners since the pipeline is a common carrier. While the free-rider complaint is real, owner-shippers are compensated in the form of a reasonable return on investment. Anything above a reasonable level is overcompensation. In this instance, the free-rider complaint disappears. Therefore, the market power inherent in the pipeline must be reduced to the level of producing reasonable rates; otherwise, nonowner-shippers will be disadvantaged. Furthermore, the pipeline is a common carrier which requires that all shippers be treated in a nondiscriminatory manner. While the owners of the pipeline have stated that they are quite willing to sell a portion of the pipeline, nonowners should not be required to buy into the pipeline in order to ship. Shipping without ownership is part and parcel of the common carrier requirements of pipelines, which receive public benefits in the form of eminent domain as a quid pro quo.

The State of Alaska has an interest in the price of oil at the wellhead since it derives a 12.5 percent royalty based on that price. This is a substantial interest even though it may be derived directly from producers and indirectly from the federal government.[173] But this is the way the royalty system has worked ever since its inception and there does not appear to be a good reason to single out Alaska for different treatment.

One final argument made by the TAPS owners is that if TAPS is singled out and not deregulated exceptions can be made for other pipelines into other frontier areas. This could create a chilling affect on the private construction of new projects. Federal government involvement may become necessary. This is unlikely to happen. Oil companies have assumed great risks in other times of uncertainty in order to exploit crude oil resources. New pipelines currently are being built into frontier areas even with the present uncertainty over rates. Therefore, as long as rate regulation is reasonable, there should be no inhibitions or disincentives to build new pipelines.

Also, it must be noted that new pipeline entry is unlikely. The cost to build a new pipeline may exceed $30 billion (based on the estimate to build the Alaskan portion of the Alaska Natural Gas Transportation System). Permitting problems are likely to be encountered, either delaying or precluding another pipeline. Even expansion of TAPS beyond the ultimate 2 million BPD capacity is difficult and costly and is controlled by present owners (capacity expansion requires approval of 51 percent of the ownership).

In summary, TAPS should not be deregulated. Market forces are inadequate to reduce the monopoly power of the pipeline. Regulation must remain in order to protect the various interests involved.

F. Other Cases

In any deregulation scenario there always will be the special case that will be pointed to to indicate why deregulation should not be implemented. Rather than trying to speculate about which pipeline may be a special case, it would be preferable to deregulate all pipelines except TAPS, but at the same time provide a mechanism whereby a pipeline that does abuse its monopoly power can become subject to regulation again. What is required is a clear-cut statement in the deregulation law that aggrieved persons can initiate a proceeding before FERC to reinstitute regulation based on an abuse of monopoly power. These proceedings should be quite few in number, since they would be limited to situations where monopoly power and resulting economic distortion is pervasive.

The form of regulation chosen should not rely upon the traditional approach using the concept of just and reasonable rates. Relying upon this traditional public utility type approach would require the same analysis now occurring in the Williams and TAPS proceedings and would not resolve the problems FERC now faces in those proceedings. Rather, the complainant would have the burden of showing that the rate is excessive, that is, that the rates charged were above normal competitive rates due to inadequate competition based upon a showing that market forces were insufficient to induce a competitive rate. Therefore, the test developed by FERC would be a market-based test comparing the pipeline in question to similar pipelines that were subject to competition. If the complainant's burden was met, the pipeline could rebut the evidence by showing that special circumstances warranted the higher rates. Such circumstances could include higher risk, unusual construction problems, unusual environmental problems, and other factors. This market-based test undoubtedly would create its own set of problems, but at least it would depart from the public utility type of regulation and introduce more flexibility into the regulation process.

In the FERC proceeding, the burden would be on the complainants to make an affirmative showing that the pipeline should be subject to regulation. Placing a meaningful burden on complainants should reduce frivolous complaints, since the pipeline could continue to charge its deregulated rates until ordered to do otherwise. An evidentiary hearing would permit a full airing of views and provide the appropriate process to determine the validity of the complaint. In this way, special cases can be dealt with without trying to make a prior determination about which pipeline should be treated as a special case.

V. CONCLUSION

The analysis leads to the conclusion that in most situations the ability of petroleum pipelines to exert monopoly or monopsony power is circumscribed. Structurally, pipeline concentration is high, however, in many instances this concentrated structure is undermined by the existence of waterborne, and in some instances, truck transportation. Entry, on the other hand, is relatively easy, further limiting the ability of a pipeline to exert any monopoly or monopsony power. Finally, competition in end-use markets will limit the ability of pipelines to pass along excessive rates. The general conclusion, therefore, is that deregulation of petroleum pipelines should be pursued, except for TAPS.

TABLE I

CRUDE PIPELINE CORRIDORS - 1979

Company Rank / Corridor	Alaska	Capacity[1]	CR	Wyoming West	Capacity	CR	Wyoming East	Capacity	CR
1.	Trans Alaska Pipeline System	1210	100	Chevron	110	71.90	Platte	150	58.37
2.				Amoco	43	22.10	Amoco	107	41.63
3.									
4.									
CR 4		1210	100		153		100	257	100
5.									
6.									
7.									
8.									
CR 8									

---

[1] All capacity in thousand barrels per day.

TABLE I--Continued

CRUDE PIPELINE CORRIDORS - 1979

Company Rank \ Corridor	Texas to Cushing, OK	Capacity	CR	Cushing, OK North	Capacity	CR	Gulf Coast Upper Mid-Continent	Capacity	CR
1.	Texoma	400	21.76	Ozark	322	19.71	Capline	1209	73.36
2.	Basin	394	21.44	Cushing-Chicago	295	18.05	Mid-Valley	277	16.81
3.	Seaway	314	17.08	Osage	280	17.14	Mobil	162	9.83
4.	Amoco	285	15.51	Amoco	260	15.91			
CR 4		1393	75.79		1157	70.80		1648	100
5.	Arco	160	8.71	Texas-Cities Service	137	8.38			
6.	Amoco	135	7.34	Williams	106	6.49			
7.	Texaco-Cities Service	61	3.32	Phillips	91	5.57			
8.	Shell	46	2.50	Continental	72	4.41			
CR 8		1979	97.66		1563	95.65			
Others	Continental	25		Shell	39				
	Texaco-Cities Service	18		Texaco-Cities Service	32				
		1838			1634				

TABLE I--Continued

CRUDE PIPELINE CORRIDORS - 1979

Corridor / Company Rank	Gulf Coast to Upper MidContinent	Capacity	CR
1.	Capline	1209	27.80
2.	Chicago	490	11.27
3.	Texoma	400	9.20
4.	Ozark	322	7.40
CR 4		2421	55.67
5.	Seaway	314	7.22
6.	Cushing-Chicago	295	6.78
7.	Mid-Valley	277	6.37
8.	Amoco	260	5.98
CR 8		3567	82.02
Others	Woodpat	[illegible]	
	Mobil	162	
	Texaco-Cities Service	161	
	Texaco-Cities Service	137	
	Shell	39	
	Texaco-Cities Service	32	
		4349	

TABLE I--Continued

CRUDE PIPELINE CORRIDORS - 1979

Corridor / Company Rank	Upper MidContinent	Capacity	CR	Upper MidContinent	Capacity	CR	West Texas	Capacity	CR
1.	Lakehead	740	17.56	Lakehead	740	23.75	Basin	347	20.29
2.	Lakehead	710	16.85	Chicap	490	15.73	West Texas Gulf	335	19.90
3.	Chicap	490	11.63	Marathon	336	10.70	Mesa	316	18.48
4.	Marathon	336	7.98	Marathon-Mid-Valley	302	9.69	Mobil	250	14.62
CR 4		2276	54.02		1868	59.95		1148	67.13
5.	Marathon	315	7.48	Woodpat	251	8.06	Arco	170	9.94
6.	Marathon-Mid-Valley	302	7.17	Marathon	174	5.58	Phillips	98	5.73
7.	Woodpat	251	5.96	Texaco-Cities Service	161	5.17	Texas	65	3.80
8.	Marathon	174	4.13	Tecumseh	117	3.75	Phillips	63	3.68
CR 8		3318	78.36		2571	82.51		1644	96.14
Others	Texaco-Cities Service	161		Texas	104				
	Tecumseh	117					Exxon	38	
	Texas	104					Shell	28	
	Texas	89		Texas	89				
	Buckeye	87		Buckeye	87			1710	
	Marathon	72							
	Marathon	60		Marathon	60				
	Marathon	48		Marathon	48				
	Sohio	47		Sohio	47				
	Pure	35		Pure	35				
	Sohio	25		Sohio	25				
	Texas	25		Texas	25				
	Marathon	17		Marathon	17				
	Marathon	8		Marathon	8				
		4213			3116				

TABLE I—Continued

CRUDE PIPELINE CORRIDORS - 1979

Corridor Company Rank	West Texas to TX Gulf	Capacity	CR	East Texas & LA to TX Gulf	Capacity	CR	All Texas & LA to TX Gulf	Capacity	CR
1.	Rancho	385	61.11	Texas	360	56.34	Rancho	385	12.92
2.	Exxon	130	20.63	East Texas Main Line	63	9.86	Texas	360	12.08
3.	Texas-New Mexico	68	10.79	Mobil	61	9.55	Basin	347	11.65
4.	Amdel	47	7.46	Pure	50	7.82	West Texas Gulf	335	11.25
CR 4		630	100		534	83.57		1427	47.90
5.				Shell	45	7.04	Mesa	316	10.61
6.				Black Lake	32	5.01	Mobil	250	8.39
7.				Neale	28	4.38	Arco	170	5.71
8.							Exxon	130	4.36
CR 8					639	100		2293	76.97
Others							Phillips	98	
							Texas-New Mexico	68	
							Texas	65	
							Phillips	63	
							East Texas Main Line	63	
							Mobil	61	
							Pure	50	
							Amdel	47	
							Shell	45	
							Exxon	38	
							Black Lake	32	
							Shell	28	
							Neale	28	
								2979	

61

TABLE II

PRODUCT PIPELINE CORRIDORS - 1979

Company Rank \ Corridor	Gulf Coast-South & Northeast	Capacity[1]	CR	Linden-Philadelphia Delaware-west	Capacity	CR
1.	Colonial	1908	81.36	Buckeye	321	42.46
2.	Plantation	437	18.64	Laurel	180	23.81
3.				Arco	134	17.72
4.				Mobil	74	9.79
CR 4		2345	100		709	93.78
5.				Sun	36	4.76
6.				Getty	11	1.46
7.						
8.						
CR 8					756	100

[1] All capacity in thousand barrels per day.

TABLE II--Continued

PRODUCT PIPELINE CORRIDORS - 1979

Company Rank \ Corridor	Texas Gulf Coast-north	Capacity	CR	Cushing-north & west	Capacity	CR
1.	Explorer	380	41.53	Williams	248	38.39
2.	Texas Eastern Transmission	300	32.79	Phillips	131	20.28
3.	Mobil	95	10.38	Kaneb	93	14.40
4.	Gulf	48	5.25	Chase	49	7.59
CR 4		823	89.95		521	80.65
5.	Arco	47	5.14	Cherokee	28	4.33
6.	Exxon	28	3.06	Mobil	27	4.18
7.	Mobil	17	1.86	Arco	25	3.87
8.				Amoco	23	3.56
CR 8		915	100		624	96.59
Others				Getty	12	1.86
				Texaco-Cities Service	10	1.55
					646	100

TABLE II--Continued

PRODUCT PIPELINE CORRIDORS - 1979

Corridor / Company Rank	Cushing-north & east	Capacity	CR	Upper Great Plains	Capacity	CR	West Slope Cascades	Capacity	CR
1.	Explorer	290	59.06	Chevron	64	51.61	Olympic	170	100
2.	Phillips	105	21.38	Yellowstone	60	48.39			
3.	Cherokee	73	14.87						
4.	Williams	23	4.68						
CR 4		491	100		124	100		170	100

TABLE II--Continued

PRODUCT PIPELINE CORRIDORS - 1979

Company Rank / Corridor	California	Capacity	CR
1.	Four Corners	288	36.59
2.	Southern Pacific (LA)	247	31.39
3.	Southern Pacific (Richmond)	77	9.78
4.	San Diego	75	9.53
CR 4		687	87.29
5.	Calnev	70	8.89
6.	Southern Pacific (Bakersfield)	30	3.81
		787	100

Footnotes

1. Two major proceedings involving petroleum pipelines are now pending, Williams Pipeline and Trans Alaska Pipeline System. Both will be discussed infra.

2. National Petroleum Council, Petroleum Storage and Transportation Capacities, Petroleum Pipeline. Vol. III, 4 (1979). (Hereinafter cited as "NPC.")

3. Id.

4. Petroleum pipelines normally are considered common carriers due to their inclusion within the coverage of the Interstate Commerce Act (ICA), discussed infra. Private carriers do not fall within ICA coverage. See NPC 3 for estimate on private carrier mileage.

5. Gathering lines exist in crude oil producing fields, usually range in size from two to eight inches, and carry crude from small lease tanks at the wellhead to central areas, large tanks or tank farms, for pumping into larger crude trunk lines.

6. NPC C-1.

7. Crude pipelines are divided between trunk lines--long distance transporters from crude producing fields to refineries, and gathering lines, see, supra note 5. For more detail, see L. Coburn, United States Petroleum Pipelines: An Empirical Analysis of Pipeline Sizing, Appendix II (1980). (Hereinafter cited as "Coburn.")

8. Refined product pipelines move light refined products--gasolines, aviation fuels, distillates--from refineries to terminals located in or near consumption markets. Coburn II-5-II-7.

9. Liquid petroleum gases (LPG) and natural gas liquids (NGL) pipelines move natural gas products from field gas plants or fractionation facilities to refineries or distribution terminals. LPG pipelines batch ethanes, propanes, butanes, and natural gasolines to distribution terminals or refineries. NGL pipelines move natural gases from field separation plants to a central fractionation plant where ethanes, propanes, butanes, and natural gasolines are separated. NPC E-1.

10. Id. at 4.

11. Coburn Appendix II.

12. Id.

13. Id. at xi. Some care must be taken in how the barrel-mile number is derived because pipeline capacities can vary substantially over the length of a line due to changes in pipeline diameter. A simple capacity-length calculation will be misleading if diameter changes are substantial. Therefore, more accuracy will be achieved by dividing a pipeline system into segments with varying capacities and lengths.

14. Id. at Appendix I.

15. Id. at Appendix II contains a short, but complete description of how pipelines operate. Essentially, the liquid is pushed through the pipeline by increasing the pressure on the liquid using pumps spaced along the pipeline. While the direction of flow can be reversed, operational adjustments are necessary which require time.

16. Congressional Research Service, National Energy Transportation, Vol. I, Current Systems and Movements, Pub. No. 95-15, Senate Comm. on Energy and Natural Resources and Senate Comm. on Commerce, Science, and Transportation, 95th Cong., 1st Sess., 1977.

17. Refineries located in coastal areas receive crude by both pipeline and water (tankers and barges). On the East Coast, for example, of domestic receipts of crude oil, about 34 percent arrived by pipeline and about 55 percent arrived by water. Of foreign crude oil receipts on the East Coast (foreign receipts overwhelmed domestic receipts by a factor of eight), 5 percent arrived by pipeline while 95 percent arrived by tanker or barge. On the Gulf Coast, of domestic receipts of crude oil, 80 percent arrived by pipeline and 17 percent by tanker and barge; of foreign receipts (foreign receipts represented only 41 percent of combined receipts), 4 percent were pipeline deliveries and 96 percent were water deliveries. In the landlocked areas of the Midwest and Great Plains, the deliveries are almost entirely by pipeline. In the Midwest, for example, of domestic receipts of crude oil, 97 percent arrived by pipeline, and only 1 percent arrived by barge or tanker; of foreign receipts, 96 percent arrived by pipeline and 4 percent arrived by barge or tanker (foreign receipts constituted about 37 percent of total refinery receipts). In the Great Plains the disparity is equally striking: of domestic receipts, 93 percent arrived by pipeline, and less than one percent arrived by tanker or barge; and of foreign receipts, all arrived by pipeline (foreign receipts constituted only 11 percent of refinery inputs). Lastly, on the West Coast, domestic crude is delivered more evenly, 50 percent by pipeline and 41 percent by tanker or barge, while for foreign crude only 10 percent arrived by pipeline and 90 percent arrived by tanker or barge (foreign receipts accounted for 36 percent of total receipts). Department of Energy, DOE/EIA 0108(80), Crude Petroleum, Petroleum Products, and Natural Gas Liquids: 1980 (Final Summary), Table 13 (1981).

18. Congressional Research Service, supra note 16.

19. Department of Energy, *supra* note 17, at Table 26.

20. Coburn, *supra* note 7.

21. In this study majors were identified as the largest 18 oil companies: Amerada Hess Corporation, Ashland Oil, Inc., Atlantic Richfield Company, Cities Service Company, Conoco, Inc., Exxon Corporation, Getty Oil Company, Gulf Oil Corporation, Marathon Oil Company, Mobil Oil Corporation, Phillips Petroleum Company, Shell Oil Company, Standard Oil Company of California, Standard Oil Company of Indiana, Standard Oil Company of Ohio, Sun Oil Company, Texaco, Inc., and Union Oil Company of California. Id. at 40-44, 59.

22. While DOE's study identified 147 pipeline systems, not all submitted data to DOE. A total of 92 companies submitted data, the additional 22 (92 + 22 = 114) were undivided interest systems included within the data of the 92 reporting companies. Id. at 40. Undivided interest pipelines are similar to joint venture pipelines, except that a separate stock company is not formed and each owner posts its own tariff for transportation through its share of the joint facility. Id. at VI-1-VI-11.

23. Id. at 40-44.

24. Staff of Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 95th Cong., 2d Sess., *Oil Company Ownership of Pipelines*, 25 (Comm. Print 1978). (Hereinafter cited as "Senate Pipeline Report.")

25. Coburn III-1, Association of Oil Pipe Lines, *Pipeline Transportation: A Review of the Oil Pipeline Industry*, 3-4 (1976).

26. Senate Pipeline Report 25-26; Coburn III-3-6.

27. Senate Pipeline Report 26-27.

28. Id.

29. Id. at 99.

30. Id.

31. Id. at 99-102.

32. 34 Stat. 584 (1906); 49 U.S.C. 1.

33. *Standard Oil Co. of N.J.* v. *United States*, 221 U.S. 1 (1911). See also, E. Mitchell, ed., *Vertical Integration in the Oil Industry*, (1976) for an excellent discussion of the reintegration of the companies spun off as a result of this decree.

34. The Interstate Commerce Act was recodified without substantive change by Pub. L. 95-473 (Oct. 17, 1978), 92 Stat. 1337, 49 U.S.C. 10101 *et seq*. The recodification expressly provided that the previous codification or numeration would apply to oil pipeline matters. Revised Interstate Commerce Act, Pub. L. 95-473, section 4(c), 92 Stat. 1470 (1978). Jurisdiction over petroleum pipelines, however, was transferred to FERC in the Department of Energy Organization Act, on October 1, 1977. Pub. L. 95-91, section 402(b), 91 Stat. 584 (1977), 42 U.S.C. 7155, 7172(b).

35. 49 U.S.C. 1(5).

36. 49 U.S.C. 1(4).

37. Id.

38. Id.

39. 49 U.S.C. 15(1), (3), (6).

40. 49 U.S.C. 2 and 49 U.S.C. 41, 43.

41. 49 U.S.C. 3(1).

42. 49 U.S.C. 4(1).

43. 49 U.S.C. 6.

44. 49 U.S.C. 13(1), (2).

45. 49 U.S.C. 15(7).

46. See generally, W. Jones, *Authority of the Department of Energy to Regulate Anticompetitive Aspects of Petroleum Pipeline Operations*, (1978).

47. *In the matter of Pipe Lines*, 24 I.C.C. 1 (1912).

48. *The Pipe Line Cases*, 234 U.S. 548 (1914).

49. Id. at 560.

50. Id. at 562.

51. *The Pipe Line Cases*, 234 U.S. 548 (1914), and *Valvoline Oil Co.* v. *United States*, 308 U.S. 141 (1939).

52. *The Pipe Line Cases*, 234 U.S. 548 (1914).

53. *Champlin Refining Co.* v. *United States*, 329 U.S. 29 (1946), and *United States* v. *Champlin Refining Co.*, 341 U.S. 290 (1951).

54. 49 U.S.C. 19a provides for valuation of carrier property. Valuation was used as the basis for ratesetting. For a description of the development of ICC's valuation procedures, see A. Johnson, *Petroleum Pipelines and Public Policy, 1906-1959*, 240-41, 391-95 (1967). For a recent treatment of the legal and economic implications of valuation, see P. Navarro and T. Stauffer, *The Legal History and Economic Implications of Oil Pipeline Regulation*, 2 Energy Law J. 291 (1981). (Hereinafter cited as "Navarro and Stauffer.")

55. Fair value ratemaking was disavowed in *F.P.C.* v. *Hope Natural Gas Co.*, 320 U.S. 591 (1944), and specifically with reference to petroleum pipelines, see *Farmers Union Central Exchange* v. *F.E.R.C.*, 584 F.2d 408 (D.C. Cir. 1978), *cert. denied sub nom. Williams Pipe Line Co.* v. *F.E.R.C.*, 439 U.S. 995 (1978).

56. The Supreme Court's decision in *Hope* provided the criteria for a reasonable return for rate regulation purposes. Returns to capital are adequate if they are "commensurate with returns on investment in other enterprises having corresponding risks" and "assure confidence in the financial integrity of the enterprise, so as to . . . attract capital." *Hope*, 320 U.S. at 603. Prior methodologies used for determining reasonable returns were rejected because they were too arbitrary and did not permit a meaningful basis for comparing returns with reference to capital markets, the method chosen in *Hope* for ensuring meaningful returns.

57. *Reduced Pipe Line Rates and Gathering Charges*, 243 I.C.C. 115 (1940).

58. Id. at 139.

59. Id. at 142-44.

60. Id.

61. 243 I.C.C. 589 (1941).

62. Id. at 662.

63. *Minnelusa Oil Corp.* v. *Continental Pipe Line Company*, 258 I.C.C. 41 (1944).

64. Id. at 48.

65. Protests were filed against tentative ICC valuations of Williams Brothers Pipe Line Company, I.C.C. Valuation Dkt. No. 1423 (1971 Report), and against specific Williams' tariffs, I.C.C. Dkt. IS-9098. The only exception applied to rates on shipments of propane, see *Pipeline Rates on Propane from Southwest to Midwest*, 318 I.C.C. 615 (Div. 2 1962).

66. Petroleum Products, Williams Brothers Pipe Line Co., 351 I.C.C. 102 (Div. 2 1975), aff'd on reconsideration, 355 I.C.C. 479 (1976).

67. Id.

68. Farmers Union Central Exchange v. F.E.R.C., supra note 55.

69. Id. at 421.

70. F.E.R.C. Dkt. No. OR79-1.

71. F.E.R.C. Dkt. No. OR78-1.

72. 47 Foster Oil Pipeline Report 5 (November 1981).

73. Id. at 507, App. 1-15, summarizes the arguments of the major actors at the most recent oral argument held November 19, 1981. See text at note 68 for brief explanation of Farmers Union case.

74. Id.

75. Id.

76. For an excellent exegesis on these issues, see Navarro and Stauffer and P. Navarro, R. Petersen, and T. Stauffer, A Critical Comparison of Utility-Type Ratemaking Methodologies in Oil Pipeline Regulation, 12 Bell J. of Economics 392 (1981).

77. Trans Alaska Pipeline System (Rate Filing), 355 I.C.C. 80, aff'd sub nom. Mobil Alaska Pipeline Co. v. I.C.C., 557 F.2d 775 (5th Cir. 1977), aff'd sub nom. Trans Alaska Pipeline Rate Cases, 436 U.S. 631 (1978).

78. Trans-Alaska Pipeline System, Initial Decision Phase I Issues, February 1, 1980.

79. Id.

80. Senate Pipeline Report 59-63, and Standard Oil Co. of N.J. v. United States, 221 U.S. 1 (1911).

81. See legislative history leading to passage of Hepburn Act in Senate Pipeline Report 99-102.

82. This is an often cited justification for the imposition of regulation, see A. Kahn, The Economics of Regulation: Principles and Institutions, Vol. 1 "Economic Principles," 1-19 (1970), and C. Phillips, The Economics of Regulation, chap. 2 (1969).

83. Coburn 15-16, and E. Mitchell, ed., Oil Pipelines and Public Policy, 3-12 (1979).

84. Coburn 11-26 and sources cited therein.

85. Department of Justice, *Report of the Attorney General, pursuant to Section 7 of the Deepwater Port Act of 1974 on the Applications LOOP, Inc. and Seadock, Inc. for deepwater port licenses*, (November 5, 1976), Department of Justice, *Report of the Attorney General, pursuant to Section 19 of the Alaska Natural Gas Transportation Act of 1976*, (July 1977), Department of Justice, *Report of the Antitrust Division on the Competitive Implications of the Ownership and Operations by Standard Oil Company of Ohio of a Long Beach, California-Midland, Texas Crude Oil Pipeline*, (June 1978), and Department of Justice, *Antitrust Advice on the License Application of the Texas Deepwater Port Authority*, (July 1979).

86. Coburn.

87. See Kahn, and Phillips, *supra* note 82.

88. See Section IV.c. *infra*.

89. F. Scherer, *Industrial Market Structure and Economic Performance*, chap. 2 (2d ed. 1980).

90. Comparative transportation costs are:

	Cost/100 barrel-miles
Truck	$0.51 -- $0.75
Rail	0.115 -- 0.60
Barge	0.04 -- 0.15
Pipeline	0.025 -- 0.12
Tanker	0.01 -- 0.06

Sources are Association of Oil Pipelines, *supra* note 25, and G. Wolbert, Jr., *U. S. Oil Pipe Lines*, Appendix A, 481 (1979).

91. J. Piercey, *The Pipeline Segment of the Domestic Petroleum Industry: Structure and Conduct*, 112 (1978) (Ph.D. Dissertation, University of Oklahoma), estimates 1975 average expense per 1000 barrel-miles is $0.34 for crude and $0.38 for product, while 1975 average revenue per 1000 barrel-miles is $0.60 for crude and $0.71 for product.

92. Crude Oil Windfall Profit Tax Act of 1980, Pub. L. 96-223, Apr. 2, 1980, 94 Stat. 229, 26 U.S.C. 4986 *et seq*.

93. 94 Stat. 249, 26 U.S.C. 4996.

94. Atlantic Richfield Co., Exxon Corporation, and Standard Oil Company (Ohio) in conjunction with BP, Ltd. are the largest owners of both the pipeline and the producing fields.

95. See *Trans-Alaska Pipeline System*, Initial Decision Phase I Issues, February 1, 1980.

96. Revenue for 1979 obtained from *Oil & Gas Journal*, Aug. 11, 1980, at 86. TAPS revenue derived by multiplying 1979 TAPS capacity of 1,210 MM BPD from EIA data, by the weighted average tariff of $6.20 per barrel from TAPS Initial Decision.

97. EIA data indicate about 7,118,444,000 barrels carried in 1979, Department of Energy, DOE/EIA-0108(79), *Crude Petroleum, Petroleum Products, and Natural Gas Liquids: 1979 (Final Summary)*, Tables 13 and 28 (1980). Also, there are 42 gallons to the barrel.

98. In the competitive model, the firm produces the maximum output for the least cost (price equals long run marginal cost). Regulation attempts to replicate the competitive model so that resources are allocated in the most efficient way. If regulation is lifted and pipelines can exert some monopoly power, the equilibrium established in the competitive model is upset and the firm is able to reduce output and raise its price (price exceeds long run marginal cost). In this process, the firm earns something more than it should if it were producing at the maximum level under the competitive model. The extra earnings are an economic rent. But when the firm earns this rent it does not obtain the full amount between the monopoly price-output combination and the competitive price-output combination. Some value to society is lost along the way, called a deadweight loss. Scherer, *supra* note 89, at 16-18.

99. The assumptions used to derive this figure are: transportation costs increase by $0.50/bbl, total pipeline movements are 7,118 million barrels, crude price is $35/bbl and elasticity of final demand is 0.5. The elasticity of demand number is a good approximation based upon the range identified in T. Morlan, D. Skelly, and A. Reznek, *Price Elasticities of Demand for Motor Gasoline and Other Petroleum Products*, (1981). A recent article indicated that a $24 million deadweight loss is reason for concern, W. Landes and R. Posner, *Market Power in Antitrust Cases*, 94 Harv. L. Rev. 937, 954 (1981).

100. Throughput-unit cost relationships depend upon pipeline size. Unit cost increases are much more dramatic for pipelines less than 24 inches in diameter; while pipelines with diameters of 24 inches or more unit costs are quite insensitive through a broad range of volumes up to about 50 percent of capacity. After that unit costs increase dramatically. Coburn 143, and Wolbert, *supra* note 90, at 496.

101. For a comprehensive discussion of Texas crude production, see Staff of the Subcomm. on Monopolies and Commercial Law of the House Comm. on the Judiciary, 96th Cong., 1st Sess., *Interdependence in Domestic Crude Oil: Joint Ventures, Farm Outs, Exchanges, and Gathering Lines*, (Comm. Print 1979).

102. The rationale for this assertion is that FERC closely regulates the rates of each gas pipeline company. A tight regulatory approach to oil pipelines would require similar costs.

103. Conversation with Robert E. Anderson, Deputy Director, Office of Regulatory Analysis, FERC.

104. Id.

105. C. Studness, "Third-Quarter Electric Utility Financial Results," Public Utilities Fortnightly, December 17, 1981, at 47-48; and Department of Energy, DOE's Role in Restoring the Financial Health of the Electric Utility Industry, September 29, 1981 (Working paper).

106. Speech by James B. Edwards, Seminar on Utility Finances before the U. S. National Committee of the World Energy Conf. and the Edison Electric Institute, Oct. 28, 1981.

107. ICA requires jurisdictional pipelines to provide services on a common carrier basis. Therefore, once a pipeline is built nonowners can require the pipeline to provide space in the line even if it is full by forcing the line to prorate space. Owners view these shippers as freeriders since the shippers do not have to invest anything to obtain space in the line.

108. Scherer, supra note 89.

109. Id.

110. The delineation of a product market is relatively straightforward. Transportation is what is under consideration and nothing substitutes for it, unlike the electric power industry where transportation of fuel may be substituted by transmission of electric power.

111. See relative transportation costs, supra note 90, and Association of Oil Pipe Lines, Shifts in Petroleum Transportation, (September 1981).

112. See supra note 111.

113. M. Piette, The U. S. Petroleum Pipeline Industry; A Study of Vertical Integration, (1977) (Ph.D. Dissertation, Florida State Univ.).

114. Piercey, supra note 91.

115. J. Hansen, Competitive Aspects of the United States Petroleum Pipeline Industry: Implications for Regulatory Policy, 65-66, (1980) (Ph.D. Dissertation, Yale Univ.) (Hereinafter cited as: "Hansen.")

116. Id.

117. Coburn, supra note 7.

118. Id.

119. Crude purchasing essentially is an international market. The price of crude paid to producers in the Yates Field in Texas, for example, in part is determined by the price of crude in Saudi Arabia. Moreover, crude buyers can substitute crude from one part of the world with crude from another, with some crude specification limitations. While a rigorous shipments analysis has not been undertaken, a quick perusal of available data indicates that neither Texas nor Louisiana, the two largest crude producing states, can be considered discrete geographic markets. See Department of Energy, supra note 97 for data, and G. Werden, The Use and Misuse of Shipments Data in Defining Geographic Markets, 26 Antitrust Bulletin 719 (1981), and K. Elzinga, Defining Geographic Market Boundaries, 26 Antitrust Bulletin, 739 (1981) for a discussion of the shipments data approach to geographic definition.

120. Staff of the Subcomm. on Monopolies and Commercial Law of the House Comm. on the Judiciary, supra note 101, at 34.

121. Id.

122. The 39 markets in order of size are: 1. Port Arthur, Tex.-Lake Charles, La.; 2. Houston-Texas City, Tex.; 3. Los Angeles, Cal.; 4. Chicago, Ill.-Hammond, Ind.; 5. Philadelphia, Pa.; 6. Richmond, Cal.; 7. Baton Rouge, La.; 8. New Orleans, La.; 9. St. Louis, Mo.; 10. Corpus Christi, Tex.; 11. Linden, N.J.; 12. Ferndale, Wash.; 13. Southwest, Ind.-Southeast, Ill.; 14. Toledo, Ohio; 15. Pascagoula, Miss.; 16. Ponca City, Okla.; 17. Kansas City, Mo.; 18. Cushing-Tulsa. Okla.; 19. Wichita, Kan.; 20. St. Paul, Minn.; 21. Bakersfield, Cal.; 22. Amarillo, Tex.; 23. Lima, Ohio; 24. Midland-Odessa, Tex.; 25. Salt Lake City, Utah; 26. Delaware City, Del.; 27. Billings, Mont.; 28. Catlettsburg, Ky.; 29. Buffalo, N.Y.; 30. El Paso, Tex.; 31. Casper, Wyo.; 32. Wrenshall, Minn.-Superior, Wis.; 33. Detroit, Mich.; 34. Shreveport, La.; 35. Warren, Pa.; 36. El Dorado, Ark.; 37. Canton, Ohio; 38. McPherson, Kan.; 39. Denver, Colo. These 39 refinery markets represented 98 percent of 1977 Continental U.S. refinery capacity. Hansen 79-83.

123. Eighteen of the 39 were considered to lie on major waterways, namely 1-12, 14, 15, 26, 29, 32, and 33. The 18 account for about 78 percent of 1977 refinery capacity of the 39 markets. Hansen 79-84.

124. Id. at 88.

125. The DOE/EIA data that forms the basis of the Coburn study are available for this purpose.

126. In 34 of 39 markets data are available. Those markets where data are not available are: Los Angeles, Cal.; Richmond, Cal.; Bakersfield, Cal.; Shreveport, La.; and El Dorado, Ark.

127. The five markets that do not receive crude by water or receive only negligible amounts are: 4 (negligible), 9, 14, 32, and 33, Department of Energy, supra note 97, Table 13.

128. Hansen accounted for ownership in computing concentration ratios. If that were done in this paper, concentration would increase.

129. Hansen 89.

130. Id. at 96. Hansen referred to the pipelines' power in terms of monopsony since he viewed them as receivers or buyers of product. Strictly speaking, however, the pipelines do not buy the product but sell transportation. Therefore, it may be more accurate to use the term monopoly power.

131. Using DOE's data, no pipelines distributing from the market were found in three markets: Catlettsburg, Ky.; Wrenshall, Minn.-Superior, Wis.; and Warren, Pa.

132. These corridors are not the same ones identified in DOE's study since that study was examining a different phenomenon, namely capacity utilization.

133. Association of Oil Pipe Lines, Shifts in Petroleum Transportation, (September 1981).

134. Department of Energy, supra note 97, Tables 26 and 27.

135. Association of Oil Pipe Lines, supra note 133.

136. See discussion in note 130.

137. Hansen 96-98.

138. J. Delaney, R. Fenili, and H. Field, The State of Competition in Gasoline Marketing (1981).

139. Scherer, supra note 89.

140. Id. at 11, 236.

141. Trans-Alaska Pipeline Authorization Act, Pub. L. 93-153, Nov. 16, 1973, 87 Stat. 584, 43 U.S.C. 1651 et seq.

142. J. Bain, Industrial Organization, 1968; J. Ferguson, Advertising and Competition: Theory, Measurement, Fact, 1974; G. Stigler, The Organization of Industry, 1968.

143. H. Demsetz, Barriers to Entry, 72 American Econ. Rev. 47 (1982).

144. Id.

145. At least 22 states have laws relating to eminent domain and/or common carrier responsibilities of pipelines: Arizona, Arkansas, California, Colorado, Indiana, Kansas, Kentucky, Louisiana, Michigan, Montana, Nebraska, Nevada, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, West Virginia, and Wyoming. A. Johnson, Petroleum Pipelines and Public Policy, 1906-1959, 21, 189 (1967). See also W. Beard, Regulation of Pipe Lines as Common Carriers, 39-42 (1941).

146. Colonial Pipeline's problems in securing rights-of-way in Pennsylvania are an example. G. Wolbert, Jr., U.S. Oil Pipe Lines, 123 (1979).

147. During World War II two pipelines encountered difficulty in obtaining rights-of-way. Congress enacted the Cole Act, 55 Stat. 610, 15 U.S.C. note prec. 715, July 1, 1941, which enabled interstate pipelines to exercise the right of eminent domain when the President determined that such action was in the interest of national defense. This solved the pipelines' problem. Id. at 20.

148. 30 U.S.C. 185. It should be noted that any statute which deregulates pipelines must also revise this section of the Mineral Leasing Act. All pipelines receiving a permit crossing federal lands must be operated as common carriers. 30 U.S.C. 185 r (1). The pipeline must transport all oil without discrimination without regard to whether it was produced on federal land. 30 U.S.C. 185 r (2)(A). All oil owned by the government or owned by any lessee of government land has the right to have their oil carried at reasonable rates and without discrimination. 30 U.S.C. 185 r (4). A substantial number of pipelines hold permits to cross federal lands. See, Hearings before the Subcomm. on Public Lands of the House Comm. on Interior and Insular Affairs, 93rd Cong., 1st Sess., Oil and Natural Gas Pipeline Rights-of-Way, 112-114 (1973).

149. Supra note 143.

150. In other industries access to rights-of-way is a particular problem. For example, coal slurry pipelines have not been built because of the lack of either state or federal eminent domain authority. Without such authority, railroads have been able to stop or greatly delay the entry of coal slurry pipelines. Federal eminent domain legislation has been thwarted thus far in the Congress.

151. Coburn II-19-23.

152. See Coburn 58, 64-65.

153. Wolbert, supra note 90, at 229 et seq.

154. W. Baumol, *Contestable Markets: An Uprising in the Theory of Industry Structure*, 72 American Econ. Rev. 1 (1982); E. Bailey, *Contestability and the Design of Regulatory and Antitrust Policy*, 71 American Econ. Rev. 178 (1981).

155. Baumol indicates that a perfectly contestable market is a benchmark for desirable industrial organization. The characteristics of a perfectly contestable market are: (1) entry is absolutely free and exit is absolutely costless; (2) it never offers more than a normal rate of profit--its economic profits must be zero or negative; (3) there is an absence of any sort of inefficiency in production in industry equilibrium; and (4) in long-run equilibrium no product can be sold at a price that is less than its marginal cost. W. Baumol, *Contestable Markets: An Uprising in the Theory of Industry Structure*, 72 American Econ. Rev. 1-5 (1982).

156. Id. at 3-4.

157. Id. at 4.

158. E. Bailey, *Contestability and the Design of Regulatory and Antitrust Policy*, 71 American Econ. Rev. 178 (1981). Bailey, citing the work of Demsetz, indicates that "it is sunk costs and not economies of scale which constitute the barrier to entry that confers monopoly power. It is primarily the risk involved in expending large sums of money in order to acquire sunk-cost facilities that deters new entry when an otherwise profitable entry opportunity arises. Potential competition becomes an ever more effective force as the extent of large irretrievable entry costs declines." Id. at 178-179.

159. Id. at 179.

160. *Supra* note 100.

161. 49 U.S.C. 2 and 49 U.S.C. 41, 43 (the latter are known as the Elkins Act).

162. There is another question that has been discussed extensively in the literature on oil pipelines and that is, does the dividend confer a cost advantage to the owner-shipper that can be used in an anticompetitive manner? This issue stems from the situation that owner-shippers receiving a dividend are shipping at cost, while nonowner-shippers are shipping at something above cost. Many have argued that this situation is inherently unfair (see Senate Pipeline Report 85-86) while others have indicated that the owner-shipper is merely receiving its normal return on investment for the risk it took for building the pipeline in the first place. More fundamentally, however, the question is whether the dividend includes something more than a normal return on investment and whether this extra return can be used in a competitively advantageous manner. While no one has been able to prove whether the dividend has been used in an anticompetitive manner

in upstream markets, DOE has shown conclusively that it has not been used in gasoline marketing, at least during the last decade. In a study released in January 1981, DOE concludes that profits from upstream segments have not been used to subsidize gasoline marketing during the 1970s. Delaney, Fenili, and Field, The State of Competition in Gasoline Marketing, 1981. Given the highly competitive nature of gasoline marketing, it is very unlikely that in deregulated environment, that any returns above a normal return on investment to pipeline shipper-owners that also market gasoline will be used in downstream marketing in an anticompetitive manner.

163. The cases are cited and discussed in Senate Pipeline Report 119-122.

164. Id. at 122-123.

165. An example may help to illustrate this concept.

	Pipeline A	Pipeline B
Equity	$1,000,000	$ 100,000
Debt	--	900,000
Total Valuation	1,000,000	1,000,000
Interest @ 10%	-0-	90,000
Dividend Return to Equity (7% of total valuation)	70,000	70,000
Total Allowed Return to Capital	70,000	160,000

Pipeline A, 100 percent equity financed, receives a total return to capital of $70,000. Pipeline B, which has only 10 percent equity, receives the same dollar return to equity of $70,000, but, it also receives $90,000 in interest recovery through its rates, for a total dollar return to capital of $160,000. Thus, the higher the percentage of debt, the higher dollar return to capital and, in turn, the higher total percentage return to capital. D. Mead, Exxon Paper on TAPS Deregulation, 2-3 (October 27, 1981), memorandum to Robert Means, Director, Office of Regulatory Analysis, FERC, attached to letter from Means to Frank L. Heard, Jr., General Counsel, Exxon Pipeline Company, October 27, 1981.

166. U.S. v. The Atlantic Refining Company, et al., Civil Action No. 14060 (D.D.C. November 16, 1981), Motion of The United States To Vacate The Final Judgment And For Other Relief.

167. U.S. v. The Atlantic Refining Company, et al., Statement of Points And Authorities In Support Of Motion Of The United States Of America To Vacate The Final Judgment And For Other Relief, 12.

168. 49 U.S.C. 3(1), 13(4).

169. 49 U.S.C. 2, 3(1). See, *Potomac Elec. Power Co.* v. *Penn Central*, 356 I.C.C. 815, 827 (1977); *Lynchburg Traffic Bureau* v. *U.S*, 225 F. Supp. 874 (W.D.Va. 1963), *aff'd* 377 U.S. 270 (1964).

170. *Minnelusa Oil Corp.* v. *Continental Pipe Line Co.*, 258 I.C.C. 41 (1944); *Pipeline Rates on Propane from Southwest to Midwest*, 318 I.C.C. 615 (Div. 2 1962).

171. Ownership shares are distributed among the eight in the following manner: Sohio 33.24%, Arco 20.96%, Exxon 19.93%, BP 16.15%, Mobil 4.98%, Phillips 1.63%, Union 1.63%, and Amerada Hess 1.46%. BP owns a controlling interest in Sohio; therefore, their ownership shares should be combined to present a truer picture of control.

172. United States Geological Survey, Circular 860, *Estimates of Undiscovered Recoverable Conventional Resources of Oil and Gas in the U.S.*, (1982).

173. In an analysis by Exxon, it is stated that every $1.00 reduction in TAPS' tariffs bestows a 25-cent benefit on Alaska, 13 cents coming from the TAPS owners and 12 cents indirectly through the federal income tax. Exxon, *Deregulation of TAPS*, 5 (September 16, 1981).

Senator Nickles. Thank you, Mr. Mares. I also realize that you are under time constraints and need to leave. We appreciate that Mr. Coburn is also with us today.

Mr. Baxter, do you have a couple of comments?

STATEMENT OF HON. WILLIAM F. BAXTER, ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE

Mr. Baxter. Well, in the interest of being as brief as possible, Mr. Chairman, I will adopt the statement that Mr. Mares has already made. It comes very, very close to our own conclusions.

We are enthusiastically in support of the general spirit of S. 1626, but we are unable to support it in detail. In our view, pipeline markets are local markets and one cannot speak in general of the industry as being competitive. Rather one must look at the industry pipeline by pipeline.

The evidence suggests that the overwhelming majority of pipeline companies do face effective competition both at the intake and at the output end of the pipeline. In our view, the correct approach here is one that announces that at a date certain—let us say a year after enactment of the legislation—all pipelines will at that moment be totally deregulated. This would permit a shipper or a group of shippers to come in and show, with respect to a particular pipeline, that that pipeline exercised significant market power either at its input end or its output end. Reregulation or continuation of regulation could occur on such a showing.

The other point I would like to stress is that, to the extent deregulation occurs, we think it would be a very serious error to retain the other shackles of ICC regulation that would be retained by S. 1626. If there is enough competition to dispense with rate regulation as we think there is in most pipeline systems, then it is totally unnecessary to have access regulation—posting or filing of tariffs, provisions against long-term contracts, and the like. In an unregulated context, all of those provisions are intensely anticompetitive rather than facilitating competition, and we would strongly oppose a bill that attempted to retain those features as part of a deregulation effort.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Baxter follows:]

Department of Justice

STATEMENT

OF

WILLIAM F. BAXTER
ASSISTANT ATTORNEY GENERAL
ANTITRUST DIVISION
UNITED STATES DEPARTMENT OF JUSTICE

BEFORE

COMMITTEE ON ENERGY AND NATURAL RESOURCES
SUBCOMMITTEE ON ENERGY REGULATION
UNITED STATES SENATE

CONCERNING

S. 1626
DEPARTMENT OF ENERGY
ORGANIZATION ACT AMENDMENTS OF 1981

ON

MAY 21, 1982

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear before this Subcommittee to present the views of the Department of Justice on deregulation of the oil pipeline industry. This issue is of interest to the Department because of our long-standing involvement in pipeline regulatory proceedings before the Federal Energy Regulatory Commission, and our responsibility to insure there are no anticompetitive practices in vertically related sectors. The Administration and this Department are committed to the careful exploration of all possible opportunities to reduce the burden of federal regulation on private enterprise. We think that the oil pipeline industry is a candidate for deregulation. Consistent with this spirit, we have reviewed S. 1626, a bill that would eliminate rate regulation for domestic interstate petroleum pipelines. While we do not support the bill in its details, we do agree with its underlying spirit, and we believe that legislation can be devised that would result in complete deregulation of much, if not most, of this industry in the lower 48 states - a result that, we believe, is desirable. I will discuss the bill in the context of our position on deregulation of this industry.

Our approach to oil pipeline deregulation is based upon the premise that complete deregulation should, as quickly as possible, be the goal for this or any other industry, unless those who support regulation can show, first, that there is a serious defect in the ability of the competitive market to insure efficient resource allocation, and second, that there is strong reason to believe that the benefits of regulation exceed its costs. In the case of regulated pipelines, the first question reduces to the issue of whether significant monopoly power exists. With respect to the second question, the Department's experience before the FERC in such lengthy pipeline proceedings as the TAPS and Williams Brothers Pipe Line cases gives us first-hand knowledge of some of the regulatory costs borne by this industry. The FERC's efforts to deal with pipeline regulatory questions, since taking over the job from its predecessor agency (the ICC) in 1977, have been unproductive. In light of this history, the Department would support legislation requiring the FERC to implement, in an expeditious fashion, a regulatory regime responsive to industry needs and capable of achieving the proper purposes of regulation as to those pipelines that need to be regulated at all.

The Department is also aware of the potential cost efficiencies and economies of scale which might be experienced by particular pipelines, giving them market power in certain geographic markets. In any markets that are not workably competitive, deregulation could have substantial costs to efficient allocation of resources and consumer welfare.

The central question for any pipeline deregulation proposal, therefore, is how best to identify particular pipeline markets that should be deregulated and those that should not. One approach is general deregulation, subject to renewed regulation in any particular case in which shippers can bear the burden of establishing significant market failure. This approach would provide a quick end to any unnecessary regulation. The polar alternative is caseby-case deregulation, wherein the FERC would be empowered to deregulate only those pipeline systems which could demonstrate that they operate in competitive markets. Under this approach, which we do not favor, deregulation would be slower and more burdensome.

We and others have begun to examine available transportation shipment and price data to assess the substantiality of intra- and intermodal competition faced by particular pipelines. The data generally suggest for many pipelines -- and very possibly, most -- that continued regulation is no longer appropriate. This suggests that the preferred policy alternative is deregulation, with authority for continued or renewed regulation of particular pipeline systems only if the proponents of regulation come forward with factual support indicating that continued regulation of the particular pipeline is called for because the pipeline has significant market power.

There is, we believe, an approach to deregulation that preserves the virtue of immediate deregulation yet provides appropriate protection for shippers and consumers. This approach begins with general and complete deregulation, on a date certain following enactment of the legislation. But shippers or other interested parties would be allowed to establish facts pointing to a high probability that a particular pipeline system has market power -- i.e., the ability to raise its tariffs, for a significant period of time, to above those which earn a competitive return. Once the shipper has satisfied this threshold test, the pipeline owner would be required to show that, in fact, it does not have market power. */

---

*/ The data can be developed most efficiently by the pipelines themselves, so that there is every incentive to conduct deregulation proceedings in an expeditious fashion, and there is every reason to believe that all data favorable to the proponents of FERC action will be adduced.

The workability of this procedure, of course, depends on the test the shipper would have to satisfy. Any such threshold test must be a strict one, i.e., a shipper must clearly demonstrate that the capability of raising and maintaining prices above competitive levels exists. The test would also have to be objective, precise, and verifiable by data or information reasonably available to the shipper or other proponent of regulation. We believe that such a procedure would, with efficiency and reasonable certainty, result in continued pipeline regulation in only those cases in which it is genuinely needed.

I should also point out that while deregulating rates, S. 1626 would leave intact a plethora of other Interstate Commerce Act provisions applicable to rate discrimination, published tariffs, access regulation, and the like. Proponents of this approach argue that these provisions should be retained to ensure that competition is not impaired. However, a pipeline that has an economic motivation for engaging in access discrimination may also find it profitable to charge high rates that effectively restrict access to the pipeline. But an unregulated rate whose reasonableness may not by law be examined cannot be the basis of a denial of access claim, even though it may be abundantly clear that the unregulated rate alone is the basis for nonshipment. Put another way, if access regulation is necessary, so is rate regulation; if pipelines are so competitive that rate regulation is superflous, then so is access regulation.

In fact, if the predicate of deregulation is the existence of vigorous competition among pipelines or among transport modes, certain types of access regulation, such as the requirement of published tariffs from which no deviation is permitted, could be highly anticompetitive, and may even facilitate collusion among competitors. For these reasons, I am very troubled by the notion being advanced that these regulatory provisions, if allowed to continue, will remove any residual competitive problems posed by rate deregulation. To the contrary, they will exacerbate the problems.

Common carrier regulation of the kind that would be retained by S. 1626 is unquestionably anticompetitive when applied to competing oil pipelines. For example, the posting of tariffs with advance notice of changes and the prohibition on negotiated discounts from tariffs imposed by common carrier regulation would significantly increase the ability of otherwise competing pipelines to price collusively, while at the same time destroying the incentives traditionally associated with price rivalry among competitors. Additionally, the limitations on longterm contracts, while necessary to make common carrier regulation work, deprive shippers of an important ability to bargain, if not for prices, then at least for flexible, accomodating terms and conditions. Interestingly, the available economic data from the period when oil pipelines were common carriers, but before the imposition of any rate of return guidelines, suggest that oil pipelines were able to earn very high profits when common carrier regulation was imposed without rate regulation.

Moreover, deregulation could, in some circumstances, raise questions under the Sherman and Clayton Acts about the structure of certain oil pipelines, many of which are overlapping joint ventures. The present Interstate Commerce Act scheme of rate and access regulation creates no special Sherman or Clayton Act immunity for oil pipelines. But the existence of effective regulation is a significant factor in evaluating oil pipeline ownership structure under the antitrust laws. Conversely, the structure of pipeline ownership in any particular market may be a relevant or controlling factor in a deregulation proceeding. To address these concerns in the relatively small number of cases to which they might apply, the Department believes that any deregulation proposal should include an appropriate antitrust savings clause. Specifically, this clause should allow challenges to deregulated joint ventures under the antitrust laws where the joint venture may create, allow or continue the exercise of market power. The issue of appropriate remedies should also be addressed. In some cases, deregulation that appears doubtful may be acceptable if joint venture ownership of the line is prohibited, or if there is a requirement, among others, that ownership in the joint venture be open to all potential shippers.

In the Department's view, the end result of this worthy effort will be a deregulation process that would result in the orderly, carefully scrutinized but expeditious deregulation of those pipeline systems for which regulation is simply no longer necessary.

Mr. Chairman, I thank the Subcommittee for this opportunity to present our view on this complex and challenging topic, and I would be happy to respond to any questions that you or any member may have.

Senator NICKLES. Thank you, Mr. Baxter. Mr. Butler?

STATEMENT OF HON. C. M. BUTLER III, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

Mr. BUTLER. Mr. Chairman, I appreciate the opportunity to be here as well. My remarks will be brief.

I will associate myself with the remarks made by Mr. Mares and Mr. Baxter, with one exception. Speaking only for myself, not for the Commission or for my colleagues individually on the Commission—I think I would have to wait to see what kind of a standard was developed in making a determination of whether or not a monopoly power exists in particular pockets in the pipeline industry.

If it were sufficiently rigorous, I would expect that we would probably concur with the Department of Justice in that regard.

The other thing that I would like to indicate is my concurrence in the remarks that Senator Murkowski made with respect to the TAPS pipeline. I think that I could almost adopt those line by line and verse by verse with respect to TAPS.

I will conclude and offer to answer any questions.

[The prepared statement of Mr. Butler follows:]

STATEMENT OF
C. M. BUTLER III
CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION
BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

May 21, 1982

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for inviting me to testify today. At the outset I would like to commend the Subcommittee, and Senator Nickles in particular, for going forward with these hearings. They represent an important initiative in the continuing effort to eliminate unneeded and burdensome economic regulation. It is thus an honor to be afforded the opportunity to address today issues relevant to the proposal to deregulate the oil pipeline industry.

The policy questions discussed in my testimony */ may also be relevant to the Williams and TAPS oil pipeline cases that are now before the Commission. I must emphasize two points, however. First, in those cases the FERC is called on to apply a particular statute, not to make an unfettered policy choice. The second point is that in those cases we must decide on the factual record properly developed in them. My testimony here therefore should not be understood to reflect a commitment to a particular outcome in the Williams and TAPS cases. In view of the evident relationship between those cases and

---

*/ It also needs to be made clear that this testimony is mine and does not necessarily reflect the views of either the Commission or any of my colleagues individually.

the subject of this hearing, however, my testimony will not deal with particular pipelines. One practical effect of this limitation is that my testimony will be limited to oil pipelines in the lower 48 states.

I would like to begin by setting out the principal regulatory concerns that have shaped the policy debate over oil pipelines. As I will discuss later, I believe that these concerns have been overstated in significant respects and also that they overlook major arguments for deregulation. It is, however, difficult to understand either the policy debate or the existing regulatory structure without some understanding of the opposing view which might be called "the case for regulation."

The basic concerns appear to be three. The first and most straightforward is that, in the absence of regulation, pipelines would set unreasonably high rates. In its traditional form this was a concern with monopoly profits, and the Interstate Commerce Act's response also was traditional: it made it unlawful for oil pipelines to charge "unreasonable" prices. 1/ In 1980 the windfall profit tax added a new dimension to this concern, since it may create an incentive for vertically integrated

---

1/ 49 U.S.C. § 1(5)(1976) (repealed except for its application to oil pipelines and removed from the United States Code, Revised Interstate Commerce Act, Pub. L. No. 95-473, § 4(c), 92 Stat. 1470 (1978). See 49 U.S.C. § 1(5) and chapter 101 note (Supp. III 1979)).

pipelines to set high rates in order to transfer profits from their producing affiliates to the pipeline, thus avoiding the tax. 2/ Although the tax may have created an additional motive to set higher rates, however, it did not increase pipelines' ability to do so. That ability still depends on the existence of monopoly power.

The second concern is that pipelines would discriminate between shippers. Both the issues and the statutory provisions revelant to this concern are complex. Part of the complexity derives from the fact that most oil pipelines are vertically integrated, that is, they are subsidiaries of oil companies that also are shippers on the pipeline. Vertical integration may create additional incentives for discrimination. An independent oil pipeline might seek to discriminate in order to increase its profits by charging a higher rate to less price responsive shippers and a lower rate to more price responsive ones. A vertically integrated pipeline might discriminate for this reason, but it might also do so in order to improve the competitive position of its corporate affiliates in upstream and downstream markets.

Vertical integration may also affect the form of the discrimination. Discrimination consists most obviously of non-cost-justified differences in price or service, or indeed

---

2/ 26 U.S.C. §§ 4986-4998 (Supp. IV 1980).

in a refusal to serve certain shippers at all. Discrimination of this kind is expressly dealt with by a number of provisions of the Interstate Commerce Act and other legislation. These provisions are described in an appendix to this testimony. Here I will just briefly sketch their coverage. Basically, the provisions do three things. They guarantee access to a pipeline's services by imposing a common carrier obligation. They make the terms of service publicly available by requiring that services be offered only under the terms of a publicly filed tariff and by forbidding rebates. And they prohibit both discriminatory pricing in general and also certain specific forms of price discrimination.

If a pipeline is vertically integrated, however, even uniform high rates arguably can be discriminatory if they are excessively high, since for independent shippers they constitute a real cost while for affiliates they merely transfer economic rents from one corporate affiliate to another. This kind of reasoning does not appear to have been used in applying the Interstate Commerce Act's prohibitions against discriminatory pricing, but it did form the basis for the 1941 antitrust decree under the antirebate provisions of the Elkins Act. In obtaining that decree the Antitrust Division of the Department of Justice argued that dividends paid to an affiliated shipper constituted rebates and therefore violated the Elkins Act. 3/ Recently the Division has modified this position to argue that revenues lawfully collected under the Interstate Commerce Act may be paid as dividends to owner-shippers. 4/ Under this latter statement of the theory, for vertically integrated oil pipelines the problem of rebates and perhaps the problem of discrimination in general are not clearly distinct from the problem of excessively high rates.

The problem of discrimination and excessively high rates are also related in another way. Both assume the existence of monopoly power. A pipeline with no such power would have little ability to charge different rates to different shippers. Moreover, to the extent that it did so, little real harm would result, since shippers could turn to competing pipelines or other transportation modes.

The third concern is with what might be called the undersizing problem. 5/ Briefly stated, the argument is as follows. If an oil pipeline has monopoly power, it can to some degree

---

3/ United States v. Atlantic Refining Co., Civil Action No. 14060 (D.D.C. 1941).

4/ Statement of Points and Authorities in Support of Motion of United States of America to Vacate the Final Judgment and for Other Relief at 6, United States v. Atlantic Refining Co., Civil Action No. 14060 (D.D.C. 1981).

5/ Flexner, Oil Pipelines: The Case for Divestiture, in Oil Pipelines and Public Policy: Analysis of Proposals for Industry Reform and Reorganization (E. Mitchell ed. 1979).

control the volume of crude oil or refined products flowing out of the upstream markets or into the downstream markets that it serves. Regulation presumably prevents the pipeline from exploiting this power directly by setting higher rates, but if the pipeline is vertically integrated it may be able to exploit the power indirectly by restricting the flow in order to raise prices in its affiliates' markets. The pipeline's common carrier obligation prevents it from restricting the flow simply by denying access to its services. In theory, however, the company can restrict the flow by building a smaller pipeline than would be economically justified by the potential traffic.

There is considerable doubt that the undersizing problem has anything more than a theoretical existence. The problem does not in any event appear to be relevant to the present hearings. If the problem exists, it might violate general antitrust laws, but it appears not to violate any existing provision of the Interstate Commerce Act or related legislation, nor would it do so under S. 1626.

Let me summarize at this point. There appear to be two regulatory concerns that are relevant to this hearing. One is that, absent regulation, oil pipelines will charge prices that are excessively high; the other is that, again absent regulation, they will discriminate between shippers in price or service. These concerns are interrelated. Both depend on the existence of monopoly power. And for vertically integrated companies, the problems themselves are not wholly distinct, since uniform but high rates may be held to violate one or more of the statutory provisions intended to deal with discrimination.

This analysis suggests that S. 1626 raises two general kinds of issues. First, would the repeal of the Interstate Commerce Act's prohibition against unreasonable rates lead to excessively high rates for oil pipeline transportation? Second, is the repeal of that prohibition consistent with the retention of the anti-discrimination provisions of the Interstate Commerce Act and related legislation?

On the first issue, the critical question concerns monopoly power. Or, to state it more precisely, the question is, do oil pipelines possess sufficient market power to justify the retention of federal price controls? I believe that in general they do not. Oil pipelines, like natural gas pipelines, are characterized by economies of scale. Costs per barrel fall as the size of a pipeline increases, so that generally it is cheaper to carry a given volume of oil between two points through a single large pipeline rather than through two or more smaller ones. 6/ However, for several reasons these economies of scale do not in general result in effective monopoly power. First, as a result of market growth, the first pipeline built along a route may prove to be too small, so that one or more additional pipelines are required. As a result, a number of routes are served today by two or more competing pipelines. 7/

Second, the market power of existing pipelines is also limited by the potential competition of pipelines that might be built if rates are sufficiently high. The Interstate Commerce Act establishes no legal barrier to the entry of new oil pipelines; no certificate of public convenience and necessity is required in order to build and operate an oil pipeline. The only question that must be asked by a company considering building a new pipeline is, will it pay? And the higher the rate charged by existing pipelines, the greater the likelihood that this question will be answered in the affirmative. Such potential competition probably is particularly effective where the existing pipeline is an independent one, since the pipeline company then knows that its shippers could build their own pipeline if it sets rates that are too high.

6/ E. Mitchell, A Study of Oil Pipeline Competition at 6 (1982).

7/ L. Coburn, United States Petroleum Pipelines: An Empirical Analysis of Pipeline Sizing, Appendix II (1980); E. Mitchell, A Study of Oil Pipeline Competition (1982).

A third important limit on market power is imposed by pipelines serving other routes. The essence of competition is that buyers and sellers have a number of different opportunities available to them. In the case of oil pipelines this can occur even if no route is served by more than a single pipeline. If a producing area is served by a number of pipelines, it generally is unimportant to producers that the pipelines serve different downstream markets and therefore take different routes. Similarly, if a number of pipelines terminate in a single consuming area, they are in competition with each other even though they may originate in different places.

Finally, oil pipelines face intermodal competition. Tankers and barges can compete with pipelines over some long routes, and trucks can compete over short ones. The costs of the other modes will seldom precisely match those of pipelines, but in many cases their actual or potential competition constitutes an effective limit on the oil pipelines' market power.

No one seriously contends that the oil pipeline industry is an example of perfect competition in the textbook sense. Probably most oil pipelines do possess some market power. However, market power in varying degrees characterizes virtually all sectors of the U. S. economy. The question is, does the market power possessed by oil pipelines constitute a sufficient danger to justify the retention of federal price controls? In answering that question, it is very important to be realistic about the regulatory alternative. Price regulation is neither infallible nor cheap. An administrative agency is unlikely to succeed in setting the price that would result from perfect competition; limited resources, imperfect analysis, and conflicting goals make rate regulation a very blunt instrument. Regulation therefore is likely to improve on the performance of an unregulated market only if monopoly or other market imperfections are very substantial. It seems to me to be at least doubtful that the market power possessed by oil pipelines in most markets rises to that level.

Moreover, price regulation itself carries direct and indirect costs. It is impossible at this time to estimate the cost of an effective regulation of all oil pipelines. However, this direct regulatory cost alone may well be comparable to the efficiency gained from effective price regulation, 8/ and to this direct cost must be added industry's compliance costs and the distortions in investment and operations that are an inevitable by-product of imperfect price regulation. Simply

---

8/ T. Morlan, D. Skelly, and A. Reznek, Price Elasticities of Demand for Motor Gasoline and Other Petroleum Products (1981).

stated, for the nation as a whole, it is far less than obvious that the present system of oil pipeline regulation is a good bargain.

A much harder question is whether regulation limited to a relatively few pipelines would be justified on grounds of efficiency or fairness. There do appear to be some markets where pipelines may have significant monopoly power. This has been referred to by some as the "pockets of monopoly power" problem. These markets appear to be of two general kinds. One consists of small isolated producing areas, which are likely to be served by only a single pipeline and may be distant from any competing pipeline. The potential market power of pipelines in such areas is increased by the fact that oil producers, in contrast to natural gas producers, do not enter into long-term contracts with pipelines. Thus, in the oil industry, producers do not contractually fix their economic relationship with pipelines at the time when their bargaining position is strongest, when the reserves are still in the ground and the field is still undeveloped. If oil pipelines were now deregulated, independent producers in fully-developed fields would generally stand in a poor bargaining position in negotiating a transportation contract.

Two points should be made to put the producers' problem in perspective, however. The first is that it is the producers' problem: pipeline rates for carrying crude oil from isolated producing fields to refineries are likely to have no measurable impact on the price paid by consumers; they will instead affect the price received by producers. The second point is that the producers themselves do not appear to be concerned about this problem. Producers may be more concerned with the creation of adequate incentives to build new pipelines than with potential price increases that are likely to amount to only a few cents per barrel in most cases.

The second kind of market where little competition may exist consists of inland cities that are served by only a single pipeline. Even for these cities, the potential competition of new pipelines places some limit on the existing pipeline's market power. However, for such cities deregulation might lead to substantially higher oil transportation costs, which probably would in turn be passed on to consumers.

To deal with the problem of inland cities and perhaps also with that of isolated producing areas, Congressional consideration might be given to creating a limited price regulation applicable only where significant market power exists. If this approach is taken, I believe that the presumption should be against regulation; that is, pipelines should be free of regulation unless market power were shown to exist. It also should be made clear that the market power and potential for abuse should be substantial: rate regulation should not be imposed merely because a market does not conform to the ideal of perfect competition.

The second general issue raised by S. 1626 concerns the retention of the anti-discrimination provisions of the Interstate Commerce Act and related legislation. The Committee may, as I have suggested, wish to consider creating some sort of regulatory mechanism for dealing with cases where monopoly power does in fact exist. However, the retention of only the current antidiscrimination provisions 9/ for this purpose may create significant problems. The anti-discrimination provisions would of course prevent a pipeline from charging different rates for the same service or from setting rate differentials that were not reasonably cost justified. These provisions would, however, provide little protection where the pipeline that possessed monopoly power was not affiliated with its shippers, since they would not protect the shippers on such a pipeline from rates that were uniformly high.

9/ See Appendix.

Perhaps the more serious problem potentially created by retention of these provisions, however, is that they could provide the means for a general reimposition of price controls on the vertically integrated firms that constitute the larger part of the industry. Under the Antitrust Division's current interpretation of the Elkins Act, 10/ that Act's antirebate provision makes it illegal for vertically integrated pipelines to pay dividends in excess of a "reasonable" return. 11/ At present that return can be based on the FERC's general regulation of pipeline rates, but if pipelines were freed from general rate regulation, payment of dividends to affiliated shippers could make them vulnerable to treble damage actions under the Elkins Act. Moreover, a logical extension of the Antitrust Division's argument would imply that the Interstate Commerce Act's own prohibitions against discriminatory rates could be converted into a prohibition against uniform but high rates in the case of these vertically integrated oil pipelines.

10/ 49 U.S.C. §§ 41-43 (1976) (repealed except for its application to oil pipelines and removed from the United States Code, Revised Interstate Commerce Act, Pub. L. No. 95-473, § 4(c), 92 Stat. 1470 (1978). See 49 U.S.C. § 1(5) and chapter 101 note (Supp. III 1979)).

11/ Statement of Points and Authorities in Support of Motion of United States of America to Vacate the Final Judgment and for Other Relief at 6, United States v. Atlantic Refining Co., Civil Action No. 14060 (D.D.C. 1981).

It is difficult to assess the seriousness of this problem. It depends not only on the interpretation of the provisions concerned but also on the likelihood that the provisions will be used in this way by the Antitrust Division, by the FERC, or by private parties. What can be said at this point is that these provisions constitute an unpredictable danger that regulation through regular administrative process will simply be converted into regulation through litigation. To avoid this danger the committee may wish to consider clarifying the meaning of the provisions in question, so that they are not violated by uniform high prices or by dividends paid to corporate affiliates. To the extent that high prices and excessive dividends are viewed as a serious problem, it appears that it would be preferable to deal with the problem directly through continued price regulation in a few markets rather than indirectly through prohibition against discriminatory prices and rebates.

APPENDIX

Statutory Discrimination Provisions Applicable to Oil Pipelines

A. Common carrier obligations

Section 1(4) of the Interstate Commerce Act 1/ obligates every common carrier, upon reasonable request, to furnish transportation. Common carriers are also required to establish through routes with other carriers and to establish just and reasonable rates. Oil pipelines are common carriers by virtue of § 1(3)(a) of the Interstate Commerce Act.

B. Tariff and rebate restrictions

A common carrier is required by § 6(1) of the Interstate Commerce Act to file tariff schedules showing all transportation rates and charges. Filed tariffs may not be changed without 30 days' notice to the Commission, § 6(3). Carriers are prohibited from transporting unless the rates and charges for such transport are on file nor may a carrier charge compensation which differs from the filed tariff, § 6(7).

Section 10 of the Interstate Commerce Act contains complimentary criminal penalties for false billing or classification by a common carrier; for shippers who obtain lower rates through false billing, classification, or claims; and for inducing unjust discrimination. (This latter provision also subjects the person and common carrier involved to civil liability.) In addition, § 15(15) requires the filed tariffs to show the allowances made by a carrier for any related service to the carrier by a shipper.

The Interstate Commerce Act also contains two distinct rebate prohibitions. Section 2 of the 1887 Act, declares unlawful any special rate, rebate, drawback, or device through which a common carrier is compensated by a person to a greater or lesser extent than the carrier is compensated by another similarly situated person.

1/ 49 U.S.C. § 1(4)(1976) (repealed except for its application to oil pipelines and removed from the *United States Code*, Revised Interstate Commerce Act, Pub. L. No. 95-473, § 4(c), 92 Stat. 1470 (1978). *See* 49 U.S.C. § 1(5) and chapter 101 note (Supp. III 1979)).

The Elkins Act 2/ amended the Interstate Commerce Act in 1903, strengthening both the filed tariff and rebate provisions. It established criminal penalties (1) for the willful failure to file, publish, or observe tariffs, and (2) for the knowing offer, grant or gift, or solicitation, acceptance, or receipt of any rebate, concession, or discrimination by which property was transported for less than the filed rate, § 41(1). The Elkins Act also imposed fines treble the amount of the rebate, on those guilty of receiving rebates from a carrier, § 41(3). 3/

C. Price discrimination

There are four statutory provisions applicable to oil pipelines which prohibit price discrimination. Section 2 of the Interstate Commerce Act declares rebates to be unjust discrimination. Section 3 makes it unlawful for a common carrier to give any undue preference or advantage or to subject any person or place to any undue or unreasonable prejudice or disadvantage. Interestingly, the prohibitions of § 3 do not apply to discrimination, prejudice, or disadvantage to the traffic of any other carrier. Section 4 prohibits a common carrier from charging greater compensation for short hauls over the same line and in the same direction as long hauls. 4/

2/ 32 Stat. 847 (1903), as amended, 34 Stat. 587 (1906), 49 U.S.C. §§ 41-43 (1976).

3/ In the motion of the Justice Department to vacate the 1941 consent decree limiting the oil pipelines' return on equity, a central issue is the circumstances under which a dividend by an affiliated company constitutes a rebate. Statement of Points and Authorities in Support of Motion of United States of America to vacate the Final Judgment and for Other Relief at 6, United States v. Atlantic Refining Co., Civil Action No. 14060 (D.D.C. 1981).

4/ Section 13(4) of the Interstate Commerce Act prohibits state regulations from discriminating against interstate or foreign commerce, and § 26(c) contains a similar provision for state taxes.

The final price discrimination provision is § 2 of the Clayton Act, known as the Robinson-Patman Act, 5/ under which it is unlawful to discriminate in price between different purchasers of commodities of like grade and quality where such discrimination may be substantially to lessen competition or tend to create a monopoly, unless the price differentials make allowance for differences in the cost of manufacture, sale or delivery. 6/

5/ Robinson-Patman Act, 15 U.S.C. §§ 13-136, 21a (1976).

6/ The statutory antitrust immunity of oil pipelines is limited to rate agreements between carriers which have been approved by the Commission. 49 U.S.C. § 5b (1976). The authority to enforce the Robinson-Patman Act as it applies to oil pipelines resides in DOE. 42 U.S.C. § 7155 (Supp. II 1978).

Senator NICKLES. Thank you. Mr. DeMuth?

STATEMENT OF HON. CHRISTOPHER C. DeMUTH, ADMINISTRATOR, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET

Mr. DEMUTH. Mr. Chairman, the administration believes that the oil pipeline industry should be promptly and thoroughly deregulated. The statutory scheme at issue here was a legislative response to the Standard Oil controversy at the beginning of the century, and predated by 5 years the solution to that controversy in the Standard Oil antitrust case of 1911. The statute was never applied with the same thoroughness and pervasiveness that we are familiar with in railroads and the utility industries until 1978 when, under a new court interpretation of this archaic law, FERC was forced to gear up for the application of full-force regulation. We think this development ought to be reversed by legislation, as a part of extracting ourselves from the energy regimentation that has done so much damage to our economy in the last decade.

I would like to make three brief points. First, we believe that the oil pipeline markets are, for the most part, competitive and that the correct approach to such an industry is that of the antitrust laws. Where monopoly is the exception rather than the rule, we ought to apply a case-by-case approach as suggested by Mr. Baxter. The difference here would be that where a serious local monopoly problem could be rigorously demonstrated, the remedy would not be those of antitrust laws—which are not geared toward natural monopolies—but the imposition of a simple restraint upon maximum prices.

Second, we believe strongly that if rates are deregulated, the continuation of regulation with respect to common carrier status and price discrimination is unnecessary and potentially very harmful. Mr. Baxter has noted the potential for such restraints being anticompetitive. In addition, the continuation of such controls poses a serious danger of reregulation at the administrative level. We have seen this happen in the past where Congress has deregulated rates but maintained controls over price discrimination, and we should avoid this unfortunate loophole in this case.

Third, I would like to acknowledge and to express our understanding of the concerns that some shippers, especially small shippers, over continued pipeline access after deregulation. It is important to note, however, that access disputes have been very rare in this industry historically, strong evidence in itself of industry's essentially competitive nature. We believe that access disputes will continue to be rare after deregulation.

In any event, a good deal of the pipeline mileage in the United States has been laid down under the eminent domain powers of the States, which means that these lines are common carriers at common law. Access remedies would, therefore, be available in State courts.

Finally, access remedies would be available in appropriate circumstances under both State and Federal antitrust laws under well-established precedents. We think that the access problem, while it may be worrisome to some shippers, would be adequately handled under other legal remedies after deregulation of this industry.

Thank you, sir.

[The prepared statement of Mr. DeMuth follows:]

STATEMENT
OF
CHRISTOPHER C. DeMUTH
ADMINISTRATOR FOR INFORMATION AND REGULATORY AFFAIRS
OFFICE OF MANAGEMENT AND BUDGET
AND
EXECUTIVE DIRECTOR
PRESIDENTIAL TASK FORCE ON REGULATORY RELIEF
BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

May 21, 1982

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to present the Administration's views on S. 1626 and the elimination of federal economic controls from the oil pipeline industry. President Reagan's Task Force on Regulatory Relief has been working to free the economy of administrative regulations that are harmful, anticompetitive, or just plain obsolete. But an important part of the regulatory problem is a statutory problem as well, and this Subcommittee is to be applauded for addressing a serious case of overregulation that can only be cured through legislation.

The Administration believes that the oil pipeline industry should be thoroughly and promptly deregulated. As a general matter, we believe that federal regulatory controls should be imposed only where three conditions exist: First, where private markets exhibit serious inefficiencies that are a matter of actual fact rather than blackboard theory. Second, where these inefficiencies cannot be adequately addressed at the level of state or local government. And third, where it seems likely that regulatory controls will yield a true net improvement in the performance of the market--that is, where the benefits of regulation will outweigh its costs.

This last condition is of particular importance. In the past, advocates of regulation have tended to focus almost exclusively on inefficiencies in the private marketplace, and to ignore the inefficiencies of the regulatory process itself. A more balanced approach is to recognize that while markets are seldom "perfect," regulatory controls are seldom perfect either. This is particularly true with respect to the kind of traditional economic controls at issue here today--where government agencies decide which companies can do business, where, at what price, and under what conditions.

A generation of studies by economists, industry groups, and government agencies have demonstrated that these controls have been applied as often to competitive markets as to monopolies, and that even in monopoly markets they have often made economic problems worse rather than better. Even the most conscientious regulatory official typically lacks the kind of detailed and up-to-date information on market demand and costs necessary to determine efficient prices that properly balance the interests of consumers and investors. Indeed, the entire process of rate-of-return regulation is by now seen as a largely circular exercise, in which decisions on rates and rate structures must finally come down to guesswork and compromise rather than any kind of scientific "expertise."

The economic structure of the oil pipeline industry has been the subject of several recent studies. While one may debate particular aspects of these studies, I believe there is little doubt about their essential conclusion--that on the whole the industry has been and is likely to remain normally competitive. In particular:

- Pipelines normally compete with other pipelines, both parallel lines and other "spokes" serving the same market.

- Pipelines compete with water transportation. Barges and tankers, whose costs are in the same range as those of pipelines, move almost half of all refined products and about two-fifths of all crude oil.

- Competition in the markets for crude and refined products exerts a strong constraint on prices for transporting these products.

- The threat of entry exerts additional competitive pressures. (Although, ironically, some government regulations themselves make new entry less rapid than it would be otherwise.)

- The level of profits--so far determined primarily by market forces rather than regulation--does not appear excessive compared to other industries featuring similar investment risks.

Despite these general conclusions, there may be specific situations of local natural monopoly in the oil pipeline industry--where a particular pipeline is substantially unconstrained by competition from other pipelines, other transportation modes, potential new entry, or product markets. It is here that we must bear in mind the caveat about weighing the costs of market imperfections against the costs of government regulation. For it seems unlikely in the extreme that occasional instances of monopoly could justify the continuation of the full artillery of regulatory controls first enacted during the era of Roosevelt and Rockefeller and now possessed by the Federal Energy Regulatory Commission.

Indeed, the decision that faces this Committee today is not so much whether to deregulate, but whether to regulate at all--since it appears that pipeline regulation has not imposed significant constraints until recently. It is only under the impetus of recent court action that FERC is now developing a new and comprehensive regulatory regime that may impose broad restraints on the oil pipeline industry. Thus, while we do not currently observe in the pipeline industry the problems commonly associated with heavily regulated industries--declining investment, stagnant management, and rising prices--we may expect to encounter such problems in the future if we fail to take action now.

If, through inaction, we permit full force regulation to be applied to the oil pipeline industry, we can expect the social costs to be high:

- According to Department of Energy estimates, the costs to FERC, the oil pipeline companies, and other interested parties will be as much as $48 million annually in direct administrative expenses alone. It should go without saying that these are actually costs to consumers and taxpayers.

- If FERC establishes a rate of return that is too low, incentives to build new pipeline capacity will be seriously diminished. A monopoly pipeline is better than no pipeline at all.

- There is little reason to hope that FERC or any other agency could possibly divine a superior structure of rates that would lead to more efficient and timely development of petroleum resources.

Given the largely competitive structure of the oil pipeline market and the tradition of lax regulation, the burden of proof should lie with the proponents of full-force regulation to show that there now exists sufficient monopoly or other problems to justify such regulation _and_ that regulation is likely to yield better economic results than the imperfectly functioning market.

In this vein, we would support, as part of a broad deregulation bill, a measure to permit FERC to reimpose regulation of a particular pipeline if a shipper or other interested party could demonstrate the existence of a serious monopoly problem. Where monopoly is the exception rather than the rule, the government's approach should be similar to its case-by-case approach in other competitive industries under the antitrust laws. The only difference here would be that the remedy, where monopolies were natural rather than contrived, would be the imposition of a simple rate ceiling. And where discrete monopolies were demonstrated, we would suggest a more flexible response than the convential rate-base/rate-of-return method of determining maximum rates. For example, a rate ceiling could be established by reference to rates charged by comparable lines operating in competitive markets.

I should emphasize that the type of stand-by authority we support needs to be narrowly crafted to ensure that it does not become a device for reregulation. The Justice Department is presently developing a threshold test that could be useful in this respect. Under such an approach, shippers or other parties might be obliged to demonstrate that a pipeline substantially dominated a properly defined relevant market. If this burden was met, a pipeline owner could avoid the reimposition of regulation by showing that it nevertheless did not possess actually monopoly power, because of other circumstances or changes in market share over time. Whatever the details, it is essential that the procedure not be reversed to provide for case-by-case deregulation based on the absence of market dominance. The unfortunate history of the Interstate Commerce Commission's interpretation of the Railroad Revitalization and Regulatory Reform Act in the late 1970s counsels decisively against such an approach.

While we support deregulation of pipelines in the lower forty-eight States, we have concluded with some reluctance that the current regulatory structure should be retained for the TransAlaskan Pipeline System (TAPS), which does appear to exhibit substantial monopoly characteristics. Monopolistic pricing of TAPS' facilities could adversely affect non-pipeline owners' plans for lease purchases, exploratory drilling and production on the Alaskan North Slope--an area with large, untapped petroleum reserves. We are hesitant to apply the stand-by approach just discussed in the case of TAPS because it could lead to a lengthy period of uncertainty, which might be disruptive to future exploration and lease sales on the North Slope. In addition, the approach of basing rates on comparable competitive lines would probably be infeasible in TAPS' unique circumstances.

With the exception of these few instances, we believe pipelines should be deregulated completely. S. 1626, while deregulating rates, would retain common carrier status--including access regulation, requirements to publish tariffs, and prohibitions on price discrimination. If an industry is sufficiently competitive so that rates should be deregulated, then retaining these ancillary controls is at best superfluous and at worst harmful. The requirement to post tariffs, and the potential limitations on discounting and long-term contracting would tend strongly to inhibit vigorous price competition and normal adjustments to changing patterns of supply and demand.

I should add that we are sympathetic to the concerns of some shippers, especially small ones, over continued pipeline access. It is worth noting, however, that disputes over access have been extremely rare in this industry--further evidence of the industry's essentially competitive nature. We expect that such disputes would be equally rare after deregulation. Furthermore, almost all pipelines have been constructed under the eminent domain powers of the several states, and therefore are and must remain common carriers at common law. We believe most access disputes could be adequately resolved by the state courts, and that federal regulation is therefore unnecessary under the second guiding principle mentioned earlier. Finally, various access remedies would be available under state and federal antitrust laws in appropriate circumstances.

In sum, Mr. Chairman, the Administration supports outright deregulation of oil pipelines in the lower forty-eight States, with limited standby authority for those cases where substantial local monopolies can be proven. We believe this would be a major step in retrieving energy markets from the stultifying federal regimentation that grew up during the 1970s--and making this crucial economic sector more free, competitive, and productive.

Thank you very much.

Senator **Nickles**. Thank you, Mr. DeMuth. I really feel caught between a rock and hard spot as far as trying to work out our problems with the time constraints we are working under. I would like to just touch into one issue. It seems to me like there is general administrative consensus from all agencies and departments for the advocacy of pipeline decontrol. I think that there may be some disagreement as far as what should be done if there is, quote, an isolated monopoly-type situation; how complaints should be filed, whether it should be under FERC, or whether it should go through antitrust and the courts.

Am I picking up something that wasn't there? Mr. Baxter?

Mr. **Baxter**. I think you are, Mr. Chairman. I don't think there is any disagreement about that. I agree completely with Mr. DeMuth that where these phenomena of market power do occur, however often or rarely that may be, that antitrust remedies will in general not be appropriate, and some type of regulation would then be necessary.

Senator **Nickles**. Through FERC?

Mr. **Baxter**. I should think so.

Senator **Nickles**. OK. I was implying that from your original statement that it would be primarily through the courts and not through FERC.

Mr. Butler, do you have any comments on that as far as those isolated cases which have been alluded to, where you have an isolated refinery or somebody, and they allege access discrimination or pricing discrimination?

What would you say the remedy should be, Mr. Butler?

Mr. **Butler**. Well, one of my law school teachers used to say if the collective voice is unanimous, it is time to dissent, but I can't. I agree with both Mr. Baxter and Mr. DeMuth that antitrust remedies are inappropriate for that kind of problem.

I think that once you have gotten past the larger philosophic question as to whether you are going to deregulate this industry, that the way or the method in which you deal with the pocket monopoly problem then becomes one of relatively easy negotiation. I think that there are probably several different methods of resolution, and that it will be relatively simple to do.

Senator **Nickles**. Thank you. Senator Murkowski, did you have any questions?

Senator **Murkowski**. Yes. I would like to pose for the panel the question—I would refer to anyone who would care to answer it—if to your knowledge there are any other pipelines such as TAPS that have a parallel which I described in my opening remarks, that appear to represent a monopoly as we generally construe the terminology? Is in fact it somewhat unique? Is there anything like it or does it stand by itself?

Mr. **Baxter**. I don't think there is any question that TAPS is unique. It is unique in terms of its size, the magnitude of the investment, the barrels of throughput, but in saying that, I don't necessarily mean to suggest that there may not be other pipelines with the same degree of market power but with respect to much smaller volumes of product.

Senator **Murkowski**. I am concerned primarily with monopoly aspects, the presence it has, and would you not agree that if there were perhaps another pipeline sometime, then there would be reason to consider deregulation on that basis because you would have a competitive alternative to move the oil from that isolated area?

Mr. **Baxter**. Sometimes there will be no competitive alternative, but with respect to much smaller volumes of product, a very small pipeline could have an equal degree, nearly at least, of market power, and in some senses be a justifiable candidate for regulation. It would not be comparable to TAPS in many other senses.

Senator **Murkowski**. Let me rephrase it a little bit. Do any of you gentlemen who are involved in the regulatory process feel that it is in the best interests of this Nation to deregulate TAPS?

Mr. **Baxter**. I certainly do not think so at this time.

Mr. **DeMuth**. No, sir.

Senator **Murkowski**. I assume, Mr. Chairman, that is the concensus of the panel.

Senator **Nickles**. I would say the Senator covered his point quite well, as he usually does. I thank the Senator from Alaska and gentlemen, I thank you. We may have some additional questions that we will submit to you, and we appreciate your response to them. Thank you very much.

Our next panel that we have today is Mr. Deming Cowles who is director of State and Federal relations from the office of the Governor, State of Alaska. We are pleased to have you with us today.

STATEMENT OF C. DEMING COWLES, DIRECTOR OF STATE/FEDERAL RELATIONS, OFFICE OF THE GOVERNOR, STATE OF ALASKA, ACCOMPANIED BY TEO SPENGLER, DEPUTY DIRECTOR, AND ROBERT LOEFFLER, LAW FIRM OF MORRISON & FOERSTER

Mr. **Cowles**. In the interest of time and because of the surprising similarity of our position with Senator Murkowski's, I will make a brief statement.

I am Deming Cowles, director of State/Federal relations for the Governor of Alaska. Joining me today is the State deputy director, Teo Spengler, former oil and gas counsel in the attorney general's office in Juneau, and Robert Loeffler, who has represented the State since 1974 in connection with all matters, including the Alaska gas pipeline. The attorney general intended to be here but because of a change of schedule was not able to make it.

My comments today deal only with the regulation of TAPS and its feeder lines. Alaska believes that whatever Congress may conclude about the desirability of continuing or discontinuing oil pipeline rate regulation generally, such regulations should without question be continued for TAPS. This is because TAPS is and will remain a natural monopoly.

Why should Congress single out TAPS? To begin with, TAPS and its feeder lines are the single largest oil pipeline system in the country, as Senator Murkowski has so effectively pointed out. TAPS is the only means of transporting oil from Alaska's North Slope to U.S. markets, and it is not merely another pipeline. Congress can and should take specific account of TAPS' unique status as it explores pipeline regulatory policy. It is a natural monopoly, insulated from actual or potential competition. There is no network of competing pipelines or alternative modes of transportation to which deregulation advocates can point as the forces tending to keep rates down.

TAPS faces neither existing nor potential competition. In the words of Judge Kane in the *TAPS* case, TAPS enjoys a de facto, if not de jure, monopoly position which for economic feasibility reasons, it is practically certain to retain. No one seriously contests this. The Mitchell study of oil pipeline competition which was relied on heavily by industry to support its case for deregulation, implicitly admits it by the obvious omission of discussion or mentions of TAPS.

The owners of TAPS do not compete among themselves. North Slope production currently exceeds the capacity of the pipeline and is expected to continue to do so for many years. While production in the original Sadlerochit field of Alaska's North Slope may begin to decline late in this decade, crude oil from other fields will be flowing into the pipeline as oil from the Kuparak field has currently begun to flow now.

More importantly, the high TAPS rates significantly misallocate resources and limit competition in the production of crude oil. As the Department of Justice has recognized in the *TAPS* case, if TAPS' rates exceed reasonable levels so that the wellhead price of North Slope crude oil is reduced, then incentives for exploration and production of new Alaska crude oil will be reduced accordingly. The State of Alaska would like to see the Nation reach its goal of greater energy independence and does not feel TAPS tariffs ought to act as a dampening influence in that regard. Even if the profits gained by TAPS' owners were to be viewed as available for exploration and production, those companies would receive a significant competitive advantage over their rivals in the industry who do not own a piece of TAPS and competition in exploration and production would be restricted.

In conclusion, I would like to mention, and with some significant regret, the failure of recent efforts to settle the TAPS rate case of which you may well be aware. Everyone agrees that a reasonable settlement is preferable to continued litigation, but not surprisingly, the parties have very different ideas about what constitutes a reasonable settlement. In the recently concluded negotiation, representatives of the State and TAPS' owners grappled with the issues and ultimately came up with a package that was unsatisfactory to Alaska in that it would have departed sharply in favor of the TAPS' owners from Judge Kane's decision in phase I of the case; provided only for a 10-year settlement period, thus requiring new litigation or negotiation after 1992,. and failed to establish a methodology or set of principles to guide ratemaking for TAPS, TAPS feeders, and other existing and potential pipelines in decades to come.

To Alaska, the issue is straightforward and uncomplicated. The rationale for rate regulation applies directly to TAPS and the arguments advanced for deregulating other pipelines are inapplicable to this admitted monopoly.

Mr. Chairman, that concludes my prepared remarks. Mr. Loeffler and Ms. Spengler and I will be happy to respond to any questions you and Senator Murkowski may have.

[The prepared statement of Mr. Cowles follows:]

STATEMENT OF
C. DEMING COWLES
DIRECTOR OF STATE/FEDERAL RELATIONS
OFFICE OF THE GOVERNOR, STATE OF ALASKA
BEFORE THE
ENERGY REGULATION SUBCOMMITTEE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

May 21, 1982

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

I very much appreciate this opportunity to outline for you the views of the State of Alaska on the question of oil pipeline regulation. As you may be aware, the issue is one in which the State has a direct and vital interest. Wilson Condon, the state's Attorney General, had intended to come from Juneau to testify at this hearing but the change in hearing date created a conflict and precluded his appearance. Appearing on his behalf, I am C. Deming Cowles, the Director of State/Federal Relations in the Alaska Governor's office. Joining me today are my deputy, Teo Spengler, and Robert Loeffler, a partner in the Washington office of the law firm of Morrison & Foerster. Mr. Loeffler has represented the State since 1974 in connection with a number of matters, including the Alaska Gas Pipeline and the Trans-Alaska Pipeline System.

My comments today will deal only with regulation of the Trans-Alaska Pipeline System -- TAPS, as it is known -- and its feeder lines. Alaska takes no position on the question of pipeline deregulation in the Lower 48 states, but believes that whatever Congress may conclude about the desirability of continuing or discontinuing oil pipeline rate regulation as a general matter, such regulation should without question be continued for TAPS. The state takes this position because TAPS is, and will remain, a natural monopoly. In the absence of regulation its tariffs will remain unreasonably high, thereby depriving Alaska of hundreds of millions of dollars each year and undermining national energy policy by discouraging competitive development of Alaska's North Slope reserves.

Alaska's interest in TAPS rates is direct and vital. Alaska, as the lessor of the Prudhoe Bay field, receives a royalty of one-eighth of the production which, at its election, it may take in-kind. In recent years, Alaska has so elected and it has sold royalty oil to in-State and out-of-State buyers who must use the TAPS line to ship the oil to market. The price Alaska receives for the oil is the price after deduction of transportation charges. High transportation charges on TAPS represent a lower wellhead value and lower royalties. Severance taxes are also levied on the wellhead and low wellhead prices reduce severance tax revenues also. Every dollar reduction in wellhead value means approximately 25 cents less revenues from royalties and severances taxes to Alaska.

Why should Congress single out TAPS? To begin with, TAPS and its feeder lines is the single largest oil pipeline system in the country. In fact, TAPS represents approximately half of the total U.S. investment in oil pipelines -- more than 9 billion dollars -- and earns approximately half of the revenues of all major U.S. oil pipelines. Moreover, it is the only means of transporting oil from Alaska's North Slope to U.S. markets. It is not merely another pipeline, and Congress can and should take specific account of TAPS' unique status as it explores pipeline regulatory policy.

In addition, TAPS has a combination of special characteristics that would make deregulation of its rate-setting processes very bad public policy. The historical bases for regulation of oil pipeline rates have direct applicability to TAPS, and the arguments advanced for deregulating pipelines in the Lower 48 states are inapplicable to it.

Rate regulation was imposed on oil pipelines in 1906 because of a perception that they had substantial monopoly power which could be -- and had been -- used to achieve anticompetitive and other undesirable economic ends. Most directly, such monopoly power was seen as permitting pipeline owners to raise tariffs above competitive levels. Many current advocates of deregulation believe that oil pipelines no longer, as a general matter, possess such monopoly power, and that workable competition among pipelines or with competing modes of transportation may operate to keep pipeline rates at or near competitive levels in the absence of regulation. Without getting into the debate over whether this is true as a general matter I want to emphasize that it is clearly not true as far as TAPS is concerned.

TAPS is a natural monopoly, insulated from actual or potential competition. There is no network of competing pipelines or alternate modes of transportation to which deregulation advocates can point as the forces tending to keep rates down. TAPS is the only pipeline between Prudhoe Bay and Alaska's southern coast, and will doubtless remain so. It cost $9 billion to construct in the mid-1970's and, given the physical, financial, legal, and economic difficulties involved, it is clear that no competing pipeline will be built. If the need for additional capacity ever arose, it would be far cheaper to expand TAPS than to duplicate it.

The Administrative Law Judge in the TAPS rate case now pending before the Federal Energy Regulatory Commission determined, after hearings that fill 25,000 pages of transcript and generated 900 exhibits, that the possibility that another pipeline could be built to compete with TAPS is "remote." There is, he found, "no substantial risk today of that possibility...*/ The difficulties being experienced with financing the proposed Alaska Natural Gas Pipeline System merely reinforce that conclusion.

Nor is there any existing or potential competition from alternative modes of transporting North Slope oil to the U.S. market. As Judge Kane's opinion in Phase I of the TAPS case pointed out, during the period between the discovery of oil on the North Slope and the commitment to build TAPS a number of other proposals were considered for the transport of North Slope oil. These included a possible Trans-Canada pipeline route, ice-breaking tankers, trucks, and railroads. All were "promptly rejected" because none was "as economical or generally as feasible" as TAPS.**/ Recent confirmation of the infeasibility of nonpipeline competition with TAPS may be found in the case of the Coast Guard Icebreaker Polar Sea: two winters ago it became ice-bound in the vicinity of Kotzebue, off Alaska's Northwestern coast, and could not be extricated until the Spring.

---

*/ Initial Decision Phase I Issues at 84, Trans-Alaska Pipeline System, Docket No. OR78-1 (F.E.R.C. Feb. 1, 1980) ("Initial Decision").

**/ Id.

Thus, TAPS faces neither existing nor potential competition. In the words of Judge Kane, TAPS "enjoys a de facto if not a de jure monopoly position which, for economic feasibility reasons, it is practically certain to retain." No one seriously contests this. The Mitchell study of oil pipeline competition, which the industry relies upon heavily to support its case for deregulation, implicitly admits it by its conspiciously failure to discuss or even mention TAPS.

Nor do the owners of TAPS compete among themselves. North Slope production currently exceeds the capacity of the pipeline, and is expected to continue to do so for many years. While production in the original, Sadlerochit field of Alaska's North Slope may begin to decline late in this decade, crude oil from other fields will be flowing into the pipeline -- oil from the Kuparak field, for example, began to flow late in 1981. One U.S. Geological Survey

Report states that there is a 95% chance that an additional 7 billion barrels of oil will be discovered on or near the North Slope; if so, all of it will be shipped through TAPS.

As long as the pipeline is operating at capacity there is simply no incentive for any TAPS owner to cut its price or otherwise to compete, since it could not thereby increase its sales. A price cut would merely mean less revenue for the price-cutter. Even if production were to fall below the pipeline's capacity at some point in the future, it is less likely that price competition would ensue than that the pipeline owners would reduce capacity by decommissioning one or more pump stations, much as they have increased capacity in the past by adding pump stations. The Department of Justice agrees with Alaska that the structure of TAPS' ownership and various other factors make meaningful competition unlikely, even if production were to fall below the pipeline's capacity. But the point is academic. The fact is that the pipeline will be operating at capacity well into the foreseeable future, so that at least for a considerable period of time there will be no competition at all among TAPS owners.

In short, competition can not be counted upon to keep the rates of an unregulated TAPS at reasonable levels. We must assume that rates would rise, if otherwise unconstrained, more or less to monopoly levels.*/ This would of course operate to the detriment of non-owner shippers. It would also injure the State of Alaska by increasing the portion of the market price of crude oil attributable to transportation and decreasing the remaining portion -- that is, the wellhead price -- on which the State's royalty and tax revenues depend.

More importantly, high TAPS rates significantly misallocate resources and limit competition in the production of crude oil. As the Department of Justice has recognized in the TAPS case, if TAPS rates exceed reasonable levels so that the wellhead price of North Slope crude oil is reduced, incentives for exploration and production of new Alaska crude oil will be reduced accordingly. Even if the monopoly profits reaped by the TAPS owners were to be viewed as available for exploration and production those companies would receive a significant competitive advantage over their rivals in the industry who do not own a piece of TAPS, and competition in exploration and production would be restricted. Either way, an important part of our national energy policy would be undermined to the detriment of the public interest.

---

*/ The testimony in the TAPS case indicates -- and a number of TAPS owners have frankly admitted -- that TAPS rates are set at the highest level allowed by a 40 year old Consent Decree which limits oil pipeline dividends and thus popeline rates, and that rates would be even higher if that decree were not in place. Last fall the Department of Justice moved to vacate the decree.

It is occasionally argued that the time and resources consumed by the regulatory process outweigh any possible benefits. The process has been lengthy and expensive in the TAPS rate case, but only because this is a landmark case in which FERC is addressing issues that have never been properly resolved before; once the TAPS and Williams cases have established a set of ratemaking principles, such proceedings will be shorter and far less expensive. In any event, to put the costs of this litigation into perspective, the total expended by all parties on the TAPS litigation to date has not exceeded the dollars taken in by TAPS in ten days. And the costs that would be imposed on non-owner shippers by the monopoly prices that would prevail in the absence of regulation dwarf the costs of the case.

Finally, I would like to mention -- with some regret -- the failure of recent efforts to settle the TAPS rate case, of which you may be aware. Everyone agrees that a reasonable settlement is preferable to continued litigation but, not surprisingly, the parties have very different ideas about what constitutes a reasonable settlement. In the recently concluded negotiations, representatives of the State and one TAPS owner grappled with the issues and ultimately came up with a package that was unsatisfactory to Alaska in that it departed sharply (in favor of the TAPS owners; from Judge Kane's decision in Phase I of the case; provided only for a 10 year settlement period, thus requiring new litigation or negotiations in 1992; and failed to establish a methodology or set of principles to guide ratemaking for TAPS, TAPS feeders, and other existing and potential pipelines in the decades to come.

Mr. Chairman, to Alaska the issue is straightforward and uncomplicated. The rationale for rate regulation applies directly to TAPS, and the arguments advanced for deregulating other pipelines are inapplicable to this admitted monopoly. Deregulating TAPS would only result in monopoly profits for the pipeline owners while undermining the incentive for competitive development of the nation's most promising energy reserves. There is no reason to include TAPS and its feeder lines in oil pipeline deregulation legislation and every reason to exclude them.

That concludes my prepared remarks. Mr. Loeffler, Ms. Spengler, and I would be happy to respond to any questions.

Senator MURKOWSKI [presiding]. I thank you, Mr. Cowles. I appreciate your brevity. I would also for the record like to introduce Teo Spengler, your deputy, and Mr. Robert Loeffler, who I believe is legal counsel for the State of Alaska.

Mr. COWLES. That's right.

Senator MURKOWSKI. I don't have any lengthy questions. Obviously what we are doing is covering for a vote, and I will chair until Senator Nickles comes back from voting. Then we will do it the other way around.

I might ask you if you have some idea of how much money has been expended by the companies involved in TAPS in the litigation concerning the current differences of opinion with regard to the rate case and how much money the State of Alaska has expended, and how long has this been going on?

Mr. COWLES. Senator, the case has been going on for some 4 or 5 years.

Senator MURKOWSKI. Four to five years?

Mr. COWLES. I think Mr. Loeffler can provide you the figures or at least the ballpark figures on the cost of counsel on each side.

Mr. LOEFFLER. The State has spent, including fees for expert witnesses, in excess of $20 million.

Senator MURKOWSKI. Over $20 million over the last 4 to 5 years.

Mr. LOEFFLER. And the budget for the case extends toward the end of the decade, and will probably spend as much, we project spending as much to finish the case.

The figure spent by the owners I believe are reported to FERC, and the number I recall is well in excess of what the State has spent. We can get those figures.

Senator MURKOWSKI. Is it fair to say that there has been some $50 million expended in this litigation?

Mr. LOEFFLER. Yes.

Senator MURKOWSKI. And you would assume for the lack of a better reason it may continue for another 3, 4 years?

Mr. LOEFFLER. I would hope it would be only a shorter period.

Senator MURKOWSKI. It would appear to me with the $50 million price tag for legal fees that it is understandable perhaps why the attorneys can't get together.

Mr. LOEFFLER. I don't think I am in a position to comment on that.

Senator MURKOWSKI. Well, I am. I would make the observation that is a full employment act for just a lot of attorneys in this country and represents some of the things that are wrong with our system. I find that just staggering.

Mr. LOEFFLER. Senator, I was a staunch advocate of settlement and testified at length to the Alaska Legislature on that because there are other things that attorneys can do that probably would be more productive, but there was a big policy question on the settlement, and that was the tariffs in the last decade, and the legislature chose not to accept the settlement.

Senator MURKOWSKI. For the record, can you provide us with the rough percentage of ownership of TAPS pipeline by the name of the individual company and the percentage that that individual company utilizes the line? And I assume that the only exception in the consortium is the position of the State of Alaska where they have no interest in the line but since they have one-eighth of the oil, their oil is going through that common carrier.

For the record, would you provide the ownership percentage roughly of the basic companies?

Mr. COWLES. As a ballpark figure, the pipeline as you well understand, TAPS is owned by a number of pipeline companies that are a number of producers on the North Slope. Sohio Pipeline Co. has approximately a 33-percent interest in the pipeline. BP pipeline, Exxon pipeline, and Arco pipeline range from 15 to 20 percent in addition. The other pipeline companies I believe would be Amarada Hess and Mobile and Phillips which are fairly small percentage.

The State of Alaska, as you know, retains a one-eighth royalty ownership because of its ownership of the land and lessor status. The ownership of the production would roughly break down, as I understand it, to 50-some percent, 50, 51 percent Sohio; BP with a roughly 20- to 24-percent ownership by Arco and Exxon apiece; and the remaining 4 or 5 percent would be the remaining five companies that hold leases up there.

If it will be helpful, I will provide those.

Senator MURKOWSKI. Would it be correct from your figures then to generalize at least that the interest in the pipeline by the three major users—Standard Oil of Ohio, Sohio, Arco, and Exxon—is somewhere, their ownership is about 74 percent of the pipeline?

Mr. COWLES. That is approximately correct.

Senator MURKOWSKI. And those same companies utilize that pipeline for about 78 percent of its current capacity?

Mr. COWLES. Yes.

Senator MURKOWSKI. And the next major user would be the State of Alaska for its share of the oil?

Mr. COWLES. That would be my understanding.

Senator MURKOWSKI. We would appreciate for the record, which I believe will be open for 2 weeks, if the State of Alaska could provide for the record the exact figures on that.

Mr. COWLES. We will be happy to do that.

[Subsequent to the hearing Mr. Cowles submitted the following:]

JAY S. HAMMOND
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
WASHINGTON, D.C.

June 14, 1982

The Honorable Frank H. Murkowski
United States Senate
Dirksen Senate Office Building
Room 2104
Washington, D.C. 20510

Dear Senator Murkowski:

On behalf of the State of Alaska, I am pleased to supply for the record information responding to the question that you asked of the State's witnesses at the hearing on oil pipeline deregulation held before the Energy Regulation Subcommittee of the Senate Committee on Energy and Natural Resources on May 21, 1982. In addition, the State asks that the additional material contained in this letter be included in the hearing record because of its relevance to continued federal regulation of the Trans-Alaska Pipeline System (TAPS).

Ownership Shares in TAPS and Prudhoe Bay Oil Production

At the May 21 hearing you asked the State's representatives for a breakdown of the ownership interests in Prudhoe Bay oil production and TAPS. To the best of our knowledge, the percentage shares are as follows:

HALL of the STATES—Suite 518—444 North Capitol Street N.W.—(202) 624-5858

Entity	Interest in Oil Production*/	Interest in TAPS**/
Standard Oil (Ohio)	45.7	33.3
Atlantic Richfield	18.1	21.4
Exxon	18.1	20.3
State of Alaska	12.5	--
Mobil Oil	1.8	4.1
Phillips Petroleum	1.8	1.4
Amerada Hess	.5	1.5
British Petroleum	--	16.7
Union Oil of California	--	1.4
All Others	1.5	--

Significantly, the four integrated oil companies that together own some 92% of TAPS also have an 82% interest in Prudhoe Bay oil production. Indeed, British Petroleum and Standard Oil of Ohio (itself half owned by British Petroleum) account for 45.7% of the oil and 50% of TAPS.

Response of the State of Alaska to the "Barber Report"

Aware that the industry-sponsored Mitchell Report does not address TAPS, the TAPS owners commissioned Richard J. Barber Associates, Inc. to prepare a separate report on

---

*/ Source: Prudhoe Unit Owners Operating Agreement. Interests in other fields, e.g., Kuparuk, are excluded. If Kuparuk were included, Atlantic Richfield's share would be 2-3% higher, and the shares of other producers (except for Alaska) would be slightly lower. Shares do not add up to 100% because of rounding.

**/ Reflects only ownership interests in the pipeline itself. Ownership of the Valdez terminal is somewhat different, but inclusion of the terminal would not substantially alter the figures provided. Shares do not add up to 100% because of rounding.

"The Transportation of Alaskan North Slope Oil By Pipeline." The State did not receive the Barber report until less than two days before the May 21 hearing, and was not, therefore, able to incorporate a response into its testimony. It is apparent from even cursory review, however, that the Report's analysis is deeply flawed.

First, the Barber Report cites the fact that the published tariffs of the TAPS owners differ as evidence of competition between them and their responsiveness to market forces. But some Owners have acknowledged, and as to others it has been shown in the TAPS litigation, that TAPS tariffs have been set at the maximum allowed by a 40 year old Consent Decree that restricts oil pipeline dividends and thus effectively limits rates. TAPS rates vary only because the owners have differing debt/equity structures and therefore different limits under the Consent Decree. Moreover, as a consequence of cross-tendering virtually all oil that moves through the pipeline does so at the composite rate -- now about $6.00 per barrel. In short, there is no price competition in TAPS. If there were, the other TAPS owners would have reacted in some way to Exxon's Consent Decree-required rate reduction of last December, and they did not.

Second, the Barber Report cites potential competition from surface tankers and other, as yet unbuilt, pipelines as a constraint on TAPS rates. We would have thought that the fate of the icebreaker Polar Sea, discussed in Alaska's May 21 testimony, would lay to rest speculation about transportation based on a stream of tankers moving in the Beaufort and Chukchi Seas in the near future. And the difficulties faced by the sponsors of the Alaska Natural Gas Transportation System amply demonstrate the improbability that anyone will seek to construct a pipeline to compete with TAPS.

Third, the Barber Report dwells at length upon the competitive nature of the market for Alaskan Oil on the West and Gulf Coasts of the United States, but does not discuss why that fact has any bearing on TAPS rates. As the Report acknowledges, the market price of Alaskan oil is set by competitive forces at the oil's ultimate destination. Changes in TAPS rates do not, therefore, affect the market price; they affect only the wellhead price of the oil at Prudhoe Bay, which is determined by subtracting shipping costs (including TAPS tariffs) from the market price. The market price of Alaska's oil would thus restrain TAPS tariffs only if the TAPS owners were interested in maintaining the wellhead price, and were willing to reduce TAPS tariffs to achieve this when the market price declines.

The centerpiece of the Report is the argument that in order to spur exploration and development of North Slope reserves so that enough crude oil is produced to fill the pipeline, the TAPS owners are in fact interested in encouraging a reasonably high wellhead price and that this interest restrains TAPS tariffs. The State is pleased at the TAPS owners' acknowledgment that the wellhead price of North Slope oil has an effect on exploration and development. Because the Barber Report completely ignores the effect of integration of producers and TAPS owners, however, its conclusion that the relationship between wellhead prices and North Slope development restrains TAPS tariffs is simply wrong.

To a producer who is also a pipeline owner, revenues from production and shipment are simply two parts of a single stream of income from Alaska oil. All things being equal, an integrated company is thus largely indifferent between a dollar of wellhead revenue and a dollar of shipping revenue. But all things are not equal. Nothing competes with TAPS to ship North Slope oil. As the Barber Report notes, however, there is considerable competition for the right to explore and develop North Slope reserves, which manifests itself in bidding for oil leases on State, Federal, and Alaska Native lands. The lower the projected wellhead price, the lower the bids. To an integrated company, therefore, the "correct" strategy is obvious -- maximize the TAPS tariff and minimize wellhead price. The total stream of revenues, which is set by the market price, will be the same to the integrated company, whatever it does. But if the wellhead price is kept low, there will be less competition and lower bids for leases, and thus higher overall profits.

The above does not by any means exhaust the points in the Barber Report to which Alaska takes exception. Alaska's prepared testimony before the Energy Regulation Subcommittee addressed most of the remaining issues, however. A more detailed analysis can be made available if you believe that it would be helpful.

Alaska Oil Pipelines -- A Graphic Demonstration

The principal argument advanced by the oil pipeline companies in support of their efforts to secure deregulation of the industry is that there is competition among pipelines, and between pipelines and other means of transporting oil (*e.g.*, barge or tanker and truck) and that regulation is therefore unnecessary. Alaska has long taken the position that whatever the status of competition in the lower 48 states, there is none in Alaska. The State notes that the Departments of Justice and Energy, the Federal Energy Regulatory Commission, and the Office of Management and Budget agree, and have endorsed continued regulation of TAPS. Lest there be any question on the matter, however, we have attached a map of Alaska showing every oil pipeline in the State. TAPS is a monopoly, and will remain one for the foreseeable future.

If the State can be of any further assistance in this matter, please do not hesitate to contact me or Robert H. Loeffler, Counsel to the State.

Sincerely yours,

C. Deming Cowles

C. Deming Cowles
Director of State/Federal Relations
Office of the Governor
State of Alaska

Senator **Murkowski**. Excuse me. The record will be open for a period of 30 days. I am advised that probably the chairman has no further questions to address. I do not. I want to thank you for an excellent presentation this morning, and I think you have done a fine job for the State of Alaska as well as commenting on a matter that is vital to our entire Nation in view of the dependence on that particular pipeline for a growing percentage of our domestic oil supply.

Senator **Nickles** [presiding]. Thank you, Senator. I appreciate your chairing it, and I think if you will assist me for the next 45 minutes?

Senator **Murkowski**. I will be happy to. I will go over and vote.

Senator **Nickles**. Thank you very much. Our next panel that we have today is Dean Taylor, chairman of the Association of Oil Pipe Lines, John Roper, executive vice president of Koch Refining Co., and Thomas Van Arsdall, vice president of energy resources, National Council of Farmer Cooperatives.

Mr. Taylor, would you care to begin. The statement I made earlier would apply to you all, and if you have any particular comments that you wish to make concerning the previous testimony, the administration's or otherwise, we would welcome those comments.

STATEMENT OF DEAN B. TAYLOR, CHAIRMAN, ASSOCIATION OF OIL PIPE LINES

Mr. **Taylor**. Thank you, Mr. Chairman. My name is Dean B. Taylor. I am appearing today as chairman of the Association of Oil Pipe Lines, AOPL, an unincorporated association of 95 common carrier oil pipelines whose members transport over 95 percent of all the crude oil and petroleum products which are moved by pipeline in interstate commerce.

The members of the AOPL unanimously support economic deregulation, to eliminate regulatory authorities, to set levels of rates which oil pipelines may charge, and with the amendments Senator Nickles proposed on December 11, 1981, enthusiastically support passage of 1626 which applies to all pipelines.

There is a need for this legislation. Since FERC took jurisdiction over oil pipelines, it has been struggling with the oil pipeline ratemaking methodology. The number of undecided cases has grown from two to several hundred involving well over 2,000 suspended tariffs.

Competition controls rates in the oil pipeline industry, as Professor Mitchell on behalf of the AOPL and Richard Barber on behalf of the TAPS carriers will discuss later. Oil pipelines face competition from many sources—competition from other modes of transportation, geographic competition, competition from other energy sources, potential competition from new pipelines which anyone can build. S. 1626 recovers the regulatory authority of FERC and regulatory obligations of the regulated companies with respect to levels of rate in this highly competitive industry.

It should be emphasized that this is all the bill does. It does not in any way affect the obligations of the oil pipelines respecting discriminatory practices. The FERC retains authority to enforce those obligations. Mr. Tabor, Albert Tabor, with the attorney from the firm of Vincent and Elkins is here to answer any questions you may have about the technical amendments to the bill.

We thank you for the opportunity to be here today and present our case. It is so vital to the Nation's economy and security, and at this time I would like to ask Professor Mitchell who will tell you some more about the competition within industry, followed by Mr. Barber who will discuss the trans-Alaska pipeline system.

Thank you very much.

[The prepared statement of Mr. Taylor follows:]

STATEMENT OF DEAN B. TAYLOR
CHAIRMAN
ASSOCIATION OF OIL PIPE LINES
BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

Mr. Chairman and Members of the Committee:

My name is Dean B. Taylor. I am appearing today as Chairman of the Association of Oil Pipe Lines (AOPL), an unincorporated association of ninety-five common carrier oil pipeline companies whose members transport over 95% of all crude oil and petroleum products which are moved by pipeline in interstate commerce. I also am President of Phillips Pipe Line Company and Seaway Pipe Line Company.

The nation's oil pipeline system consists of approximately 227,000 miles of crude oil and product lines and represents an investment of over $16 billion. Under the Interstate Commerce Act entry into the oil pipeline business is unrestricted. No certificate of public convenience and necessity is required, unlike the case of gas pipeline companies. Also unlike gas pipeline companies oil pipeline companies do not own the products they transport. Instead they act as common carriers, and title to the products they carry remains with the shippers. Both independent companies and companies affiliated with companies involved in other facets of the petroleum industry operate petroleum pipelines.

Appearing with me today are the authors of two recent studies on competition in the oil pipeline industry, Professor Edward J. Mitchell of the University of Michigan, who has just completed a study for the AOPL of oil pipelines in the lower forty-eight states, and Mr. Richard J. Barber, President of Richard J. Barber Associates, who has just completed a study of the Trans Alaska Pipeline System (TAPS) which was commissioned by the eight carriers owning undivided interests in TAPS.

AOPL's Position

The members of AOPL unanimously support "economic" deregulation to eliminate regulatory authority to set the level of rates which oil pipelines may charge, and with the amendments which Senator Nickles introduced on December 11, 1981, (printed in the Congressional Record of December 11, 1981, at page 15109) enthusiastically support passage of S. 1626. The members unanimously adopted a resolution expressing their position at the winter meeting of AOPL held in Washington last December. A copy is attached to my statement as Attachment A.

The Need for This Legislation

This legislation is needed now. In years past, although oil pipeline rate regulation did not make economic sense, its administration did not trigger an all out effort to end it. However, since the transfer of regulatory jurisdiction to the FERC the burden on the taxpayer, the Commission and the oil pipeline industry has become heavy and is growing. In 1976, the last full year of regulation of oil pipelines by the ICC, the ICC's appropriation for oil pipeline valuation (the core of the ICC's regulatory method) was approximately $150,000. That was in line with previous years' appropriations. In contrast, at the FERC during 1978, the first full year of regulation of the oil pipeline industry by that commission, the oil pipeline regulation appropriation was over $3 million. It has grown to over $8 million in 1982.

Moreover, the FERC appropriations for oil pipeline regulation do not represent the entire cost to the taxpayer. The Department of Justice and the Department of Energy have also spent large sums of taxpayer money participating in the two oil pipeline rate cases which have been tried, the TAPS and Williams cases.

During the period since October 1, 1977, the date upon which jurisdiction over oil pipelines was transferred to it, the FERC has been struggling with the question of oil pipeline ratemaking methodology, but it has not been able to decide one oil pipeline rate case. The FERC should not be condemned for this. It has been doing the best it can.

However, as the record in the Williams case clearly demonstrates, regulation of the type historically administered by the FERC and its predecessor, the FPC, is completely unnecessary and unworkable when applied to oil pipelines. The predicates for such regulation do not exist in such a highly competitive industry.

During the period that the FERC has been struggling with oil pipeline ratemaking methodology, the number of undecided oil pipeline rate cases has grown from two to several hundred, involving well over 2,000 suspended tariffs. The oil pipeline industry understands the plight the FERC is facing and recognizes the danger of precipitate action by the FERC. Nonetheless, the large and growing backlog of cases at the FERC has created an unhealthy climate in the oil pipeline industry in which managers cannot project future earning prospects in order to determine the economic feasibility of new projects.

Moreover, the oil pipeline industry is now spending the time and talent of many valuable people and millions of dollars on regulatory expenses, many times the amount it spent prior to 1977. Thus the time and money expended in attempting to comply with regulatory requirements have multiplied while the test of compliance has become unclear. This situation has made it more difficult for us to get along with the job to which we are dedicated, that of providing a safe, secure and economical network on which to move petroleum and petroleum products to market.

And what are the benefits bestowed upon the public as a result of this huge cost to the taxpayer and to the regulated industry? Since competition sets the price of petroleum products in the marketplace, no measurable benefit to the ultimate consumer flows from oil pipeline regulation. Indeed, to the extent oil pipeline regulation discourages construction and operation of oil pipelines, it requires use of higher cost transportation and results in a misallocation of resources.

As to the benefits to the shippers, the lack of shipper interest in this bill makes it clear that shippers perceive no benefit to rate regulation and, indeed, see great opportunities for harm to their interests. Moreover, shippers are often large and almost always sophisticated business organizations such as producers, refiners, marketers and large industrial consumers of petroleum, who know how to protect their interests. They bear no resemblance to gas industry burner tip consumers. Furthermore, they will continue to have the FERC as a forum to assure access to oil pipelines on a nondiscriminatory basis.

Not only is there no benefit to the public from rate level regulation, there is no need for it. Competition pervades the oil pipeline industry. As others will discuss in detail, oil pipelines face competition from each other, competition from other modes of transportation, geographic competition, competition from other energy sources and potential competition from new pipelines, which can be built by anyone.

If oil pipeline rate level regulation were merely costly and unnecessary, it would be bad enough. However, it is even worse. We have today a fine oil pipeline network in place, which has been built and maintained with private capital and without government subsidy. It has a long history and tradition of serving its shippers' needs with a virtual absence of complaints. If our nation is to realize the full benefit of its petroleum resources, this network will have to be maintained and expanded as new fields are discovered, old fields are reworked, and market patterns shift. If rate level regulation makes additional oil pipeline investment unattractive, these new pipelines may not be built, and the existing pipeline network will inevitably deteriorate, as has been the case in any number of industries which have found their returns inadequate to attract capital.

S. 1626, with the December 11, 1981, amendments, will prevent this from happening. However, if S.1626 is to accomplish its purpose it is essential that those amendments be included.

S. 1626, without the proposed amendments, amends only the Department of Energy Organization Act. While it addresses the authority of the FERC, it does not address the obligations of the regulated carriers. To accomplish this, amendment of the Interstate Commerce Act is required. S. 1626, with the proposed amendments, not only amends the Department of Energy Organization Act, it also amends the Interstate Commerce Act to remove the regulatory authority of the FERC and the regulatory obligations of the regulated companies with respect to the level of rates in the highly competitive oil pipeline industry. It should be emphasized that this is all the Bill does. It does not, in any way, affect the obligations of oil pipeline companies respecting discriminatory practices. The FERC would retain authority to enforce those obligations.

In recent days it has been proposed that these obligations of oil pipelines be removed also and that total deregulation, not just economic deregulation, be enacted. In the short period of time which has elapsed since total deregulation was proposed, the oil pipeline industry has been studying the concept, but it has not been possible to complete an analysis and develop an industry position. However, some of the issues which cause concern are the effect of such legislation on the industry's common carrier status and the effect of any change in common carrier status on our shippers and on oil pipelines' powers of eminent domain, which are necessary to acquire right-of-way for new pipeline construction. If the Committee desires, we shall furnish our position for the record when it becomes available.

Another recent proposal is that legislation provide for deregulation on a pipeline by pipeline basis depending on an administrative determination whether or not the pipeline in question possesses excessive market power. Only the concept has been proposed; the test to determine whether such market power exists has not been specified. In the absence of a specific proposal, we have not been able to undertake an analysis; however, such a procedure appears to be unnecessary and is plagued with many problems. Recent studies show that the oil pipeline industry is competitive and that there is no need for pipeline by pipeline administrative determinations. Moreover, we have been subject to uncertainty for years awaiting administrative action regarding oil pipelines. These recent proposals seem to add more years of uncertainty. The experience at the ICC under the Staggers Rail Act confirms our fears in this regard. Thus, we oppose such an approach.

A section by section analysis of S. 1626 and the December 11, 1981 amendments is included as Attachment B to my statement. An analysis of the technical deficiencies of

S.1626 without those amendments, is attached as Attachment C.

Mr. Albert S. Tabor, Jr., an attorney from the firm of Vinson & Elkins who participated in the drafting of the proposed amendments, is seated with me here today. He will be glad to answer any technical questions you may have regarding the proposed amendments or about the recent proposals. I, of course, will also be glad to answer any questions you may wish to ask me..

Thank you for this opportunity to appear before you on behalf of this industry which is so vital to the nation's economy and security.

ATTACHMENT "A" TO
STATEMENT OF DEAN B. TAYLOR
CHAIRMAN
ASSOCIATION OF OIL PIPE LINES
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

The A.O.P.L. Executive Committee recommends to the membership that the Association actively support the Petroleum Pipeline Regulatory Reform Legislation (S-1626 and HR-4488) sponsored by Senator Nickles and Representative Synar with technical amendments required to essentially conform such legislation to the draft legislation approved by the A.O.P.L. Executive Committee on October 13, 1981, which include amendments to the Interstate Commerce Act and do not exclude any common carrier petroleum pipelines.

ATTACHMENT "B" TO
STATEMENT OF DEAN B. TAYLOR
CHAIRMAN
ASSOCIATION OF OIL PIPE LINES
BEFORE THE SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

ANALYSIS OF S. 1626 AND PROPOSED AMENDMENTS

Section 2 - Section 2 is a declaration of legislative policy. It makes explicit congressional policy to foster competition in the oil pipeline industry, prevent discrimination, induce investment in oil pipelines and eliminate unnecessary regulation.

Section 3 - Section 3(a) repeals Section 306 of the Department of Energy Organization Act (DOE Act). Section 306 transferred to the Secretary of Energy (the Secretary) the functions set forth in the Interstate Commerce Act (ICA) and vested in the Interstate Commerce Commission (ICC) relating to transportation of oil by pipeline.

Section 3(b) repeals Section 402(b) of the DOE Act. Section 402(b) transferred to the Federal Energy Regulatory Commission (FERC) all functions and authority of the ICC relating to the regulation of rates for the transportation of oil by pipeline and the valuation of oil pipelines.

Section 3(c) amends Section 402 of the DOE Act by adding a new paragraph vesting in the FERC all functions which were transferred to the Secretary under Section 306 and to the FERC under Section 402(b).

Section 4 - Section 4 repeals the ICA to the extent that it vests authority to suspend, determine or prescribe rates for the transportation of oil by pipeline.

Section 5 Section 5 is a section-by-section amendment of the ICA to accomplish the bill's purposes. In addition to the amendments discussed below provisions which refer only to railroads, such as references to "fares", have been deleted from the amended sections. Those provisions have already been repealed by Section 4 of the Revised Interstate Commerce Act, although the language of the ICA was not revised to reflect that repeal.

Section 1(4) of the ICA is amended to delete the requirement that oil pipeline rates and the divisions of joint rates must be just and reasonable. This is consistent with the intention to allow the level of such rates to be determined by market forces.

Section 1(5)(a), which requires that all charges be just and reasonable and that unjust and unreasonable charges are unlawful, is repealed.

Section 13(4) deals with the duty of the FERC where state regulations result in discrimination or impose an undue burden on interstate commerce. The statute is amended to eliminate the FERC's power to prescribe pipeline rates in place of those set by a state. The FERC retains its authority to set such rates aside if it finds them to be discriminatory and to prescribe regulations and practices where the state-prescribed regulations result in discrimination.

Section 15(1) is amended to delete the power of the FERC to prescribe rates. If the FERC determines that a rate is discriminatory it may order the carrier to cease and desist from charging discriminatory rates. In that event it would be up to the carrier to adjust its rate structure to comply with the FERC's order. If the FERC finds that a regulation or practice is unjust it may prescribe a just regulation.

Section 15(3) is amended to delete the FERC's authority to establish joint rates. The FERC retains its authority to establish through routes.

Section 15(6) sets forth the FERC's authority to establish just divisions of joint rates. It is repealed.

Section 15(7) deals with hearings on newly-filed rates. It is amended to delete the FERC's authority to determine whether any new rate is just and reasonable and to eliminate the FERC's authority to suspend rates pending such determination. The FERC retains the authority to hold hearings to determine whether a rate is unjustly discriminatory and whether a regulation or practice is lawful. It may suspend the operation of a regulation or practice for a period of seven months, just as under the present statute.

49 U.S.C. § 65(a) is repealed, since it is simply a supplementary statute dealing with the matters which should be considered when prescribing just and reasonable rates.

Section 6 - This is a new section which preempts state regulation of interstate transportation of oil.

Section 7 - The Act shall take effect 60 days after the date of its enactment.

ATTACHMENT "C" TO
STATEMENT OF DEAN B. TAYLOR
CHAIRMAN
ASSOCIATION OF OIL PIPE LINES
BEFORE THE SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

ANALYSIS OF S. 1626

Section 2 - Section 2 is a declaration of legislative policy. It makes explicit congressional policy to foster competition in the oil pipeline industry, prevent discrimination, induce investment in oil pipelines and eliminate unnecessary regulation.

Section 3 - Section 3(a) repeals Section 306 of the Department of Energy Organization Act (DOE Act). Section 306 transferred to the Secretary of Energy (the Secretary) the functions set forth in the Interstate Commerce Act (ICC) and vested in the Interstate Commerce Commission (ICC) relating to transportation of oil by pipeline.

Section 3(b) repeals Section 402(b) of the DOE Act. Section 402(b) transferred to the Federal Energy Regulatory Commission (FERC) all functions and authority of the ICC relating to the regulation of rates for the transportation of oil by pipeline and the valuation of oil pipelines.

Section 3(c) amends Section 402 of the DOE Act by adding a new paragraph transferring to FERC all functions which were transferred to the Secretary under Section 306 and to FERC under Section 402(b).

Section 4 - Section 4(a) repeals the ICA to the extent that it vests authority to suspend, determine or prescribe rates for the transportation of oil by pipeline.

Section 4(b) excludes the Trans Alaska Pipeline System (TAPS) from the relief granted under Section 4(a), thus leaving FERC with authority to suspend, determine and prescribe rates for the transportation of oil through TAPS.

A complete analysis of the bill requires discussions of what it does not, as well as what it does, accomplish. The bill is technically so deficient that, if enacted in its present form, it would fail to achieve the goal of economic deregulation which is being sought. The operative language of the bill removes from FERC the jurisdiction "to suspend, determine, or prescribe rates, fares, or charges...." Thus, the duty imposed upon pipelines to establish just and reasonable rates and the declaration that unjust and unreasonable charges are unlawful, as contained in Section 1, Par. 4-5 of the ICA continue in effect. Moreover, the bill does not by its terms affect FERC's power pursuant to Section 15, Par. 1 of the ICA to hold hearings to determine whether a rate is unjust or unreasonable. Although the bill would repeal the Commission's power to prescribe a just and reasonable rate after such hearings, it would not affect the authority also set forth in Section 15, Par. 1 "to make an order that the carrier or carriers shall cease and desist from such violation to the extent to which the Commission finds that the same does or will exist."

Thus, it appears FERC would have continuing authority to hold hearings on the lawfulness of rates. Should FERC decide a carrier has not met its burden to justify a proposed rate change, the carrier could be ordered to cease and desist from charging the changed rate and to make refunds based upon the prior rate. Such action could well be permissible, even after the passage of the bill, because FERC would not be determining or prescribing a rate, but would simply be fulfilling its statutory obligation, unaffected by the bill, to determine if a proposed change in a rate is just and reasonable.

Moreover, putting aside the questions of interpretation of Section 15, Par. 1, and the authority of FERC thereunder, the obligation to establish just and reasonable rates and the prohibition from charging unjust and unreasonable rates imposed on carriers by Section 1, Par. 4-5 of the ICA would continue to be effective and would undoubtedly be enforced either by FERC or the courts through prohibiting the collection of rates found to be unjust and unreasonable and/or through the award of damages. The bill would not affect FERC's power to award damages to a complainant for violations of the ICA pursuant to Sections 13 and 16 thereof.

Senator **Nickles**. Mr. Mitchell, I am familiar with your study and congratulate you on it, and if you would care to make a couple of brief comments on it?

Mr. **Mitchell**. Thank you, Mr. Chairman. Just briefly I will just briefly summarize what it was that I did in the study.

STATEMENT OF EDWARD J. MITCHELL, PROFESSOR OF BUSINESS ECONOMICS, UNIVERSITY OF MICHIGAN

Mr. **Mitchell**. I looked at 182 pipeline markets and found that on average, there were a significant number of competing entities in those markets, typically several pipelines, refiners at the destination of product pipelines, that the overwhelming percentage of markets in which pipelines operate are served by water carriers as well, and that something on the order of 40 to 50 percent of all oil carried within the United States is in fact carried by barges or tankers.

I found that profits in the industry were normal, that the degree of risk experienced by the industry was normal to above normal, and that this is consistent obviously with a competitive industry. I did not find that historic regulation of the industry was responsible for this normality, neither that competition itself was the cause of these normal profits. I explored the natural monopoly idea and found it to be a myth within the industry. I found that while pipelines have enormously widely varying profits, these are not related to pipe size and that very large pipelines are unprofitable and very small pipelines are profitable.

I found that competition has been growing over time, and there is every reason to expect that it will continue to grow over time because pipelines have a very low rate of attrition. Only 3 percent of the pipeline capacity existing in 1968 was retired by 1979, while 40 percent was added, and this is due to the technical and economic characteristics of the industry so that I would expect competition to grow over time.

Finally, I would like to say in response to an earlier witness that the exclusion of TAPS from my study was simply due to the fact that Mr. Barber was doing a study of TAPS and that there is no implication that I believe that TAPS was a monopoly.

[The prepared statement and study submitted by of Mr. Mitchell follows:]

TESTIMONY OF EDWARD J. MITCHELL
PROFESSOR OF BUSINESS ECONOMICS
UNIVERSITY OF MICHIGAN
BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

Mr. Chairman and Members of the Committee:

I appear before you today on behalf of the Association of Oil Pipelines (AOPL) to discuss why oil pipelines should no longer be subject to price or rate regulation by the Federal Energy Regulatory Commission. My remarks are based primarily on research I conducted for AOPL on competition in the oil pipeline industry. My report entitled "A Study of Oil Pipeline Competition," has been submitted to the Committee for inclusion in the record of these hearings. My comments today will therefore merely summarize what I conclude from that study.

With the ongoing deregulation of airlines, railroads and trucking it might seem at first glance that oil pipeline deregulation is just another in a series of attempts to return the transportation sector of the American economy from the heavy hand of bureaucracy to the efficiency of the marketplace. This characterization would be totally misleading. Unlike the airlines, the railroads or trucking, the oil pipeline industry has not been burdened by highly restrictive regulation. Oil pipeline companies do not require a certificate of convenience and necessity to construct a new pipeline or to extend or shut down an existing line. There has always been freedom of entry and exit. Regulation has not imposed maximum or minimum prices or rates, or restricted oil pipeline profitability, either through floors or ceilings.

The purpose of the legislation before us is to ensure that oil pipelines remain in the unregulated sector, except for the provisions of the Interstate Commerce Act prohibiting discrimination among shippers. Since the transfer of regulatory authority over the industry from the ICC to the FERC there has been a continuous attempt to characterize oil pipelines as natural monopolies, subjecting them to cost-of-service pricing and the associated paraphernalia of public utility regulation. While a favorable decision by the FERC in the _Williams_ case would ease the threat of rate regulation it would not eliminate it. If a particular commission and staff can seriously threaten to impose public utility regulation under the existing law, then even if that threat is removed by the current commission it would not necessarily imply permanent relief. Now that this fear is planted in the minds of the industry, all future decisions about pipeline investments, which will last 50 or more years, will be affected unless the threat is once and for all exorcised by legislation.

What makes it easier for Congress to act on this issue is that it will not be moving from the known of regulation to the unknown of the market as it did in the other transport industries. Rather it will be insuring a continuation of a past characterized by growth of the pipeline network, increasing economies of transport, competition, and profits in line with risk. What we can expect then is more of the same, and therefore the only issue I perceive is whether a continuation of the past is what we want in the future.

The most important question regarding the past is whether the industry has been competitive and can be expected to remain so. There is presumptively no reason to regulate the prices of a competitive industry.

The following evidence supports the competitiveness of oil pipelines:

Pipelines typically face a number of rivals. In the 59 largest metropolitan areas, those served by at least one product pipeline are served by an average of 1.6 local refineries and 3.0 product pipelines, a total of 4.5 independent competing entities (allowing for the fact that a few of the refineries and pipelines are commonly owned). In addition, about 90 percent of the population of these cities has access to water transportation. The cost of moving oil by barge and tanker is in about the same range as the cost of moving oil by pipeline. Thus, we find that within the

United States 48 percent of all refined product and 41 percent of all crude oil were moved by water in 1979. This does not include movement of foreign oil into the United States, which would be two and a half times this much again.

The barge and tanker industries are highly competitive and can be characterized as atomistic, that is, the largest firms account for a very small percentage of total capacity. (The oil industry as a whole owns only 13 percent of the barge capacity and 20 percent of the tanker capacity.)

Thus, a product pipeline would normally face substantial competition even if it were the only pipeline serving a particular market.

In the few cities over 500,000 that are not served by water transport the average number of local competing entities (refiners plus product pipelines) is 5.4, somewhat larger than the number serving cities with water access.

There are, of course, places where the number of rivals is less than average. I have investigated all those cases where a single product pipeline serves a community of 500,000 or greater. In most of these places water transport of gasoline and distillate represents a large fraction of local consumption (at least 43 percent and 34 percent, respectively). In the other cases there are either a large number of local refineries, or a combination of actual or potential competition that suggests little or no potential for the exercise of monopoly power.

I have examined pipelines collecting crude oil in areas representing 98 percent of the lower 48 domestic production, and refinery centers representing 92 percent of lower 48 refinery capacity. Looking at either the average, or the "worst" cases, from a competitive point of view I find again little or no potential for the exercise of monopoly power by oil pipelines.

In all I examined 182 market niches and found that oil pipelines typically face substantial competition.

One may ask whether very small consuming markets not covered by my study might be more likely to face monopoly power. This seems improbable. By and large product pipelines are designed to take oil from major refining centers to major consuming centers. Because of the small volumes moving to small markets, pipelines are generally uneconomical in those markets and distribution is instead carried out by truck from major pipeline terminals. An exception would be where a pipeline passes through a small community on its way to a larger one, and where the small community has sufficient volume to justify a local terminal. In this case, even if the pipeline in question did not face competition from competing pipelines or from water transport, it would be subject to the long haul-short haul clause of the Interstate Commerce Act which requires that rates to terminals along a line be no more than rates to more distant terminals on the same line. Thus, the force of competition in the major markets will also be transferred back to smaller markets along the line.

The effects of oil pipeline competition show up in the profit statistics of the industry. The delevered average rate of return on total capital for the industry is close to the average of all manufacturing industries. Statistical estimates of the risk faced by oil pipeline companies also place them in the category of about average. However, unique institutional circumstances in the pipeline industry, notably, the extreme debt financing and the throughput guarantees induced by the Elkins Act Consent Decree, cause the traditional statistical estimates of risk to understate the risk to owners of oil pipelines. Thus, I would characterize the industry as being above average in risk. The combination of average profits and above average risk is consistent with the prevalence of competition.

An argument can be raised as to whether the profitability of the industry is normal because the ICC, the FERC, or the Elkins Act Consent Decree has held profits down. My analysis of the profit data shows no evidence that the ICC or the FERC has constrained industry profits. And cases where the consent decree may have significantly constrained profits appear to be uncommon. Thus, the profits and tariffs that we observe are due primarily to competitive conditions, not regulation.

The belief that pipeline rates should be regulated derives from the theory of natural monopoly, which states that unlimited economies of scale lead to a single firm dominating a market. While it is true that oil pipelines involve technical economies of scale with respect to pipe diameter, the various assumptions needed to get from that fact to monopoly are not valid in the case of oil pipelines. Most markets are served by several oil pipelines. And if pipeline scale were a major determinant of competitive standing in the industry, it should account for an appreciable fraction of the widely varying company profit rates. It does not. At most, scale, as measured by pipe size, explains only a very small fraction of the varying degrees of success that pipelines experience. Rather, it would appear that building the right sized line in the right place at the right time with the right package of service is what determines success.

The oil pipeline industry is competitive now, but what about the future? Certain technical and economic facts make it likely that the level of competition will grow, as it has continually done in the past. First, pipelines are durable. Some pipelines laid before the Standard Oil divestiture in 1911 are still in operation, and many active pipelines are more than fifty years old. Second, operating costs represent less than half of total costs. Thus, a pipeline could with time turn out to be a poor investment for the owner yet still be more economical in operation than shut down.

Because the attrition rate of old pipelines is so low new pipelines have been added at a rate more than ten times as great as the rate at which old pipelines have been retired. Between 1968 and 1979 less than 3 percent of pipeline capacity (as measured by barrel-miles) was retired. And because new pipeline companies have entered at a significant rate the pattern of ownership of pipelines has been becoming increasingly diversified with time. The share of the 4 largest pipeline owners in total industry capacity has been falling at the rate of 5 percentage points per decade for about 3 decades, and is now at about 30 percent.

Since the technical and economic conditions underlying this trend are still in effect the expectation is that the pipeline industry will become only more competitive with time.

A STUDY OF
OIL PIPELINE COMPETITION

EDWARD J. MITCHELL

APRIL 1982

TABLE OF CONTENTS

	Page
I. Summary and Conclusions	1
II. Nature and Sources of Competition	4
A. General Competitive Characteristics	4
B. The Natural Monopoly Argument	5
C. The Importance of Water Transportation	19
D. Pipeline Competition is Cumulative	22
III. Competition and Profitability	25
A. Overall Industry Profitability and Risk	25
B. Why are Oil Pipeline Profits Normal?	40
IV. Pipeline Rivalry in Narrowly Defined Markets	57
A. Consuming Markets	60
B. Producing Markets	74
C. Refining Markets	79
D. Conclusions	85

I. SUMMARY AND CONCLUSIONS

The oil pipeline industry is a competitive industry. The number of firms is large. There are no legal barriers to entry. Ownership of pipeline companies is diversified and continues to become more diversified. The industry's profitability is about average, while its risk is somewhat above average.

The viewpoint that oil pipelines are monopolistic stems from the theory of natural monopoly. Since oil pipelines exhibit large technical economies of scale with respect to pipe size, it is hypothesized that a single dominant pipeline would be the norm on most transport routes. But the theory is an abstraction and several of its key assumptions are not valid in the case of oil pipelines. Because they do not offer homogeneous services; because demand for their services is changing and uncertain; and because production, refining and consumption of oil are widely dispersed, oil pipelines normally compete with several other oil pipelines. In fact there is very little correlation between pipeline success, as measured by profitability, and pipeline scale, as measured by size of pipe.

Besides competing among themselves, oil pipelines face competition from barges and tankers in a high percentage of their markets. Since barges and tankers charge rates for moving oil very similar to those of pipelines, we observe that barges and tankers together account for almost half the movement (as measured by ton-miles) of refined petroleum product and over two-fifths of the movement of crude oil within the United States. Since the barge and tanker industries are essentially atomistic in competitive structure, it is fair to say that oil pipelines would normally face competitive markets even if there were only one pipeline serving each market.

The trend toward greater competition in pipeline markets has existed for several decades and will probably continue because old pipelines are extremely durable and have low operating costs, while new pipelines continue to be built. In this sense competition tends to be cumulative.

An argument can be raised that the reason why oil pipelines have profits that are normal for their risk is that regulation by the Interstate Commerce Commission (now the Federal Energy Regulatory Commission) and restrictions created by the Elkins Act Consent Decree have held pipeline profits down. But this argument is not supported by the facts. There is no indication that ICC or FERC regulation has constrained pipeline profits, and cases where the consent decree has restrained tariffs and pipeline income appear to be uncommon.

An argument put forth in favor of regulation is that while oil pipelines may for the most part be competitive there may be pockets of monopoly which could be exploited if regulation were relaxed. Obviously these pockets cannot be numerous or large or they would demonstrably affect the aggregate profit statistics. A more direct test of this thesis is to examine in detail narrowly defined markets served by oil pipelines. We consider 182 market niches where pipelines serve producers, refiners and consumers. An appreciable number do exhibit the superficial characteristic of being served by only one or two product pipelines, or one or two crude pipelines. However, careful examination of these cases shows that the single pipeline is either essentially a plant facility, that is, it carries oil only for its owner and could not conceivably carry oil for anyone else; or it is confronted with strong competition from water transport, or local sources or outlets of crude and product. Rarely is it necessary to resort to an argument of potential competition, although potential competition is a real threat in almost every market examined.

We conclude that the oil pipeline industry is competitive; that the natural monopoly argument has no relevance; that competition, not regulation, has been the principal constraint on pipeline tariffs and profits; and that market niches where monopoly power could be exercised must be rare, it they exist at all. Thus, if oil pipelines were deregulated, there would be no significant change in tariffs or profits.

II. NATURE AND SOURCES OF COMPETITION

A. General Competitive Characteristics

There are no legal barriers to entry into the oil pipeline industry. No franchise or certificate of convenience and necessity is needed to build an oil pipeline.

The number of oil pipeline companies is large. More than one hundred interstate oil pipeline companies report to the Federal Energy Regulatory Commission.

Ownership of these pipeline companies is unconcentrated. The four largest owners accounted for just 30 percent of 1979 oil pipeline throughput, and the degree of concentration has been falling at the rate of about 5 percentage points per decade since 1951.[1]

Oil pipelines, in typical markets, compete against other oil pipelines, local sources or outlets for crude oil or product, and barges, tankers, railroads and trucks. The cost of moving oil by tanker and barge is similar to the cost of moving oil by pipeline. The overwhelming portion of places to which and from which oil is moved have access to water transport. As a result, almost half of all refined product and over two-fifths of all crude oil is moved by barge or tanker.[2]

---

[1] Market Shares and Individual Company Data for U.S. Energy Markets, American Petroleum Institute, Discussion Paper #014R (October 30, 1980), pp. 117-128.

[2] See Sec. II.C. below.

Profitability of the oil pipeline industry, using measures relevant to the issue of competition, is about average. Riskiness as measured by volatility of rate of return over firms or over time, and by estimated portfolio "betas," is also about average (although statistical measures of risk understate true risk to the owners of oil pipelines).[3] The industry's profits are thus in line with its risk. Since regulation does not seem to have significantly affected profits,[4] we are led to the conclusion that competition is sufficient to constrain profits.

An examination of numerous market niches suggests that situations in which a single pipeline dominates a market without serious actual or potential competition must be rare or nonexistent.[5]

Yet, in spite of these indications of competition, there remains a viewpoint that the industry is monopolistic.

B. The Natural Monopoly Argument

The view that the industry is monopolistic stems from the concept of natural monopoly: the idea that an economic activity marked by unlimited economies of scale must ultimately become dominated by a single firm. That oil pipelines are subject to economies of scale is certainly true. It is a fact that the capacity of a pipeline rises much faster than the cost of the pipe as diameter grows. For example, a 20 inch pipe costs 4.3 times as much as a 4 inch pipe, but has 48 times as much capacity;[6] and the per barrel cost of a 36 inch line operating at design capacity is about one-third that of a 12 inch line.[7]

---

[3] See Sec. III.A.

[4] See Sec. III.B.

[5] See Sec. IV.

But economies of scale do not imply monopoly. Like all economic theories natural monopoly is an abstraction. Its applicability in any particular case depends upon the validity of its assumptions. Empirical applications of the theory run into insurmountable problems in the oil pipeline case. Consider the following expression of the theory by the Department of Justice in its report on the proposed SOHIO pipeline between Los Angeles and Midland, Texas:

> ...from a technological perspective all pipelines are natural monopolies. This does not, however, imply an ability to exercise monopoly power. "Natural monopoly" is an economic term used to describe an activity in which economies of scale dictate that one firm can provide any desired level of output at a lower cost than more than one firm. This technological characteristic stems from basic engineering features of a pipeline and implies that the average cost of a unit of throughput will decline throughout the range of technologically feasible pipeline sizes. Therefore, if a decision to build new pipeline capacity is warranted at all, it would be more efficient to build a single pipeline of sufficient size to satisfy the entire demand for transportation between two points than to build several smaller pipelines. In this technological sense all pipelines are natural monopolies.
>
> These economies of scale are, however, not sufficient to endow any particular pipeline owner with monopoly power.[8]

---

[6] See G. Wolbert, U.S. Oil Pipelines, American Petroleum Institute, Washington, D.C. (1979), pp. 99-100 and the references cited there.

[7] Ibid.

[8] Report of the Antitrust Division, Department of Justice, on the Competitive Implications of the Ownership and Operation by

What this seems to say is that natural monopoly characteristics do not necessarily imply monopoly. What it probably means is that economies of scale imply a single pipeline between each two points, but that this single pipeline need not be a monopolist. However, economies of scale imply neither a single pipeline nor a monopoly.

To determine whether pipelines are monopolistic or competitive one must determine what the pipeline's market is. A pipeline that moves oil from A to B takes as its input "oil at A" and produces as its output "oil at B". It charges a fee or tariff to transform "oil at A" into "oil at B". From an economic point of view it is not essentially different from any manufacturing firm that manufactures a certain output from a certain input. If there are many alternatives open to someone with oil at A (other than shipping it to B), then the market for inputs to the pipeline is competitive. If there are many alternatives open for someone who wants oil at B (other than shipping it from A), then the market for outputs is competitive. If a pipeline finds competition in the market for its input and output the pipeline is competitive.

The department recognized this in the SOHIO case and supported the proposed line even though it believed it to be the

---

Standard Oil Company of Ohio of a Long Beach, California-Midland, Texas Crude Oil Pipeline, June 1978; reprinted as Supplement 2 in Edward J. Mitchell, ed. *Oil Pipelines and Public Policy: Analysis of Proposals for Industry Reform and Reorganization*, American Enterprise Institute, Washington, D.C., 1979, p. 232.

only line that would move oil from Los Angeles to Midland. It saw that the proposed pipeline could not significantly affect oil prices at either Los Angeles or Midland and therefore had little discretion concerning its tariffs.

Thus, the first reason why economies of scale do not lead to monopoly is that all oil does not originate at one place and is not consumed at one other place, or, more generally, that the production, refining and consumption of oil in the United States are not arranged along a straight line. There are many consuming areas and many producing sources connected by a web of transportation sources. For example, refined petroleum products enter Indianapolis by pipeline from Huntington, Indiana (to the north), Seymour, Indiana (to the southeast), Princeton, Indiana (to the south-southwest), St. Louis (to the west-southwest), and Chicago (to the northwest). Even if shipments between each pair of places were dominated by a single pipeline, each pipeline would generally find itself in competition with other pipelines.

But it is not true that economies of scale imply a single pipeline between each pair of places. The natural monopoly theory requires fixed volumes known beforehand of a homogeneous commodity or service. Oil pipelines transport changing volumes of various kinds of oil under considerable uncertainty. Crude oil production expands and contracts in various ways in various fields. Petroleum consumption expands and contracts differently at different places. The optimal pipeline system over time may in fact be a set of various sized pipes even if the future were known with certainty. In an uncertain world risk aversion with regard to capital investments that last 50 years or more will dictate limiting up-front investments to demands that are reasonably foreseeable.

That a homogeneous product or service is required for natural monopoly to apply has been recognized for more than half a century. Richard Ely, the most important economist favoring the natural monopoly idea, regarded as the first condition necessary for a natural monopoly that

> The commodity or service rendered must be of such a nature that a small difference in price will lead buyers to purchase from one producer rather than another.[9]

Competition among pipelines is not "perfect" in the sense that economists use that term. For example, it is more costly due to contamination problems to batch crude oil and refined product in the same pipeline than to specialize in just crude or just product. Thus, if A is a crude production center with a refinery and B is a consuming area with a refinery it is almost certain that crude and product from A will not be delivered to B by a single pipeline. Indeed I have found only two pipelines in the United States that have in recent years regularly carried crude and product in the same pipe: Williams Pipeline between El Dorado, Kansas and Minneapolis; and Explorer Pipeline between

---

[9] Richard T. Ely, et al., Outlines of Economics (fifth revised edition), (New York: The MacMillan Co., 1930), p. 564.

Lake Charles, Louisiana and Chicago. There are a number of pipelines that specialize in liquified petroleum gases or natural gas liquids. Economies of specialization also exist in discriminating between high and low sulfur crude and leaded and unleaded gasoline, which are in some cases run in separate pipes to avoid contamination. Different petroleum products are often shipped in separate pipes.

Obviously all the pipelines that move oil of any sort from A to B are competitive. The mere fact of a refinery at B that can convert the crude oil from A into any of the refined products shipped by product pipelines, and can produce them in varying proportions, is sufficient to guarantee this. The point is that potential shippers in varying circumstances will not regard all of the alternatives as "perfect" substitutes.

Another major differentiation of service arises from relatively small differences in location. While it is appropriate to talk about Chicago as a market, pipelines entering this market do not go to the same place in Chicago and one micro-location may be superior to another for some purposes but not for others. For example, one can move crude from Louisiana to Chicago by taking the Capline to Patoka, Illinois and then either the Chicap Pipeline or the Texaco-Cities Service Pipeline which run parallel to Chicago. But if the purpose is to move the crude on to Detroit or Toledo refineries, only the Texaco-Cities Service line will do since it connects with the Tecumseh and Lakehead lines moving east, while the Chicap does not. Similarly, three major crude pipelines run from Cushing, Oklahoma to Chicago and all arrive in different places within Chicago.

A striking example of an ostensibly small differentiation of service making a large difference in pipeline success is the case of Texoma and Seaway. Each pipeline is 30" in diameter and delivers imported crude from the Texas Gulf to Cushing, Oklahoma. Texoma began operations in 1975, Seaway in 1976. Texoma picks up crude at Port Arthur, Seaway at Freeport, just 90 miles down the coast. (This difference is insignificant to a vessel having just crossed the ocean: tanker rates would be the same.)

Yet Texoma's rate of return on capital, depending on the measure, has been middling to high compared to other pipelines, while Seaway's has been very low by any measure. For example, the de-levered rate of return on total capital of Texoma is 12.0 percent, while Seaway's is 3.1 percent. The cost to a shipper on Texoma has generally been 20-30 percent higher than on Seaway, yet Texoma operated up to 1979 at an average utilization rate of 66.5 percent, while Seaway operated at 50.3 percent.

Speculations as to Texoma's superior performance include: the presence of more terminals, that is, pick-up and delivery points; more pumping capacity, allowing for faster delivery times; and better port facilities (large tankers delivering to Freeport must lighter down to smaller vessels). Whatever Texoma's advantages are they are very real and economically dominant, and yet in no way do they involve scale economies. Indeed, the very construction of two separate crude oil lines of identical size at essentially the same time from nearby points of origin to exactly the same destination implies that the two consortia, consisting of seven and ten companies, viewed the prospective lines as so substantially different that the economies of scale obtained by building a single line were overwhelmed by the perceived differences between the two.

Thus, for three reasons -- service differentiation, changing demand, and uncertainty -- parallel pipelines are the norm rather than the exception. Pittsburgh is served with refined product from the east by four parallel pipeline companies originating in Philadelphia and New Jersey. Chicago is served with refined product by four parallel pipeline companies from St. Louis. Lest one believe that these cases might be due to a lack of coordination, that is, an ignorance of other companies' plans, consider that Amoco Pipe Line Company delivers crude oil from Oklahoma to Chicago on four parallel pipes, while Williams Pipe Line delivers refined product north from Tulsa to Kansas City on five parallel pipes, on to Des Moines with four parallel pipes, and to Minneapolis with three parallel pipes. Economies of scale are not only insufficient to lead to one pipeline company on each route, they do not even generally lead to one pipe per company per route.

Even in the more concentrated pipeline markets the concentration often has little to do with economies of scale. For example Atlanta is served by only two product pipeline companies, but these companies have five distinct pipes, two 18 inch, a 30 inch, and two 36 inch.

In rebuttal it could be said that small pipelines do not really compete with large pipelines because economies of scale give the large pipeline such a cost advantage. This raises the possibility of either predatory pricing, or the classic symptoms of natural monopoly: "cutthroat competition," collusion and merger. But none of this is observed in the oil pipeline industry. Prices are moderately stable.[10] Price-fixing suits are unknown. Mergers between competing lines are also unknown.

The reasons for this are several fold. First, the economies of scale that exist for a larger pipe size are strictly long run or planning economies. Once a pipeline is built it faces the usual U-shaped cost curves. If a pipeline were to reduce its price in order to drive out competitors, its volume would increase and its costs would rise, not fall. Secondly, the tariff at which a competing pipeline would shut down is extremely low because operating costs are typically less than half of total costs. Thus, a new large diameter pipeline might have substantially lower total average costs than an older smaller line, yet the smaller line may easily cover operating costs and continue to compete.

The acid test of whether economies of scale dominate pipeline economics and competition is whether pipeline companies with larger pipes are more profitable. A larger line, operated at optimal utilization rate, has lower costs. If it competes head-on with a smaller line it must have higher profits, since all other things being equal, the two pipelines must charge the same price. If other things are not equal, or if they do not compete "head on", profits will to that extent be less correlated with pipe size.[11]

---

[10] See Appendix A. Table A.1.

Some observers have already noticed that small pipeline companies, if anything, are more profitable than large pipeline companies,[11] casting doubt on the importance of scale economies. But a large pipeline company does not necessarily imply large pipe. A direct test is to compute the average size of pipe (weighted by miles) and relate that to rate of return on capital. Using data on average pipe size computed from the Department of Energy's U.S. Petroleum Pipeline Sizing Survey we come up with Table II.1.[13]

An appropriate profit measure for comparing different firms and different industries is the de-levered return on total capital (see Section III). Pipe size is not significantly correlated with this profit measure using conventional statistical criteria. The effect of pipe diameter on profits is in fact negative, larger pipe leading to smaller profits, but the

---

[11] Profitability varies widely among oil pipelines, and as we will show in Sec. III.B., regulation has little or nothing to do with the level or pattern of variability.

[12] For example, see John Hansen, Competitive Aspects of the United States Petroleum Pipeline Industry: Implication for Regulatory Policy, Ph.D. Dissertation, Yale University, 1980, p. 141-2.

[13] See Footnote 12, Sec. III.A. for an explanation of pipeline companies included in rate of return calculations.

Table II.1

CORRELATION BETWEEN AVERAGE PIPE SIZE AND AVERAGE PROFITABILITY OF 46 OIL PIPELINE COMPANIES, 1975-1979

Measure of Profitability	Simple Correlation	Portion of Variation in Profits Explained	Level of Statistical Significance	Estimated Effect of a 10 inch increase in pipe size on profit rate (percentage points)
De-levered return on total capital	-.10	.01	.496	-0.7
Operating Income/ Reproduction Cost	+.33	.11	.026	+2.1
Net Income Plus Interest/ICC Valuation	+.29	.08	.055	+1.1

magnitude of the effect is so small that it should be considered nil.

It can be argued that this particular profit measure favors older companies which will tend to have smaller pipe. If two pipelines had the same revenues, costs and initial investment, the older pipeline would have a lower book value and a higher rate of return. To offset this bias we consider a profit measure biased in favor of the newer pipeline. Operating income divided by reproduction cost new treats each pipeline as if it had just been built.[14] Obviously, older pipelines are disadvantaged by this measure since rarely would an older pipeline actually be reproduced at a later time under changed demand conditions.

This measure shows a positive and statistically significant correlation between pipe size and profits, but even here only 11 percent of profit differences is explained, meaning that 89 percent is accounted for by other things.

A compromise measure that includes both reproduction cost and depreciation is the measure that the ICC used in setting its guideline returns. This gives a lower correlation with only 8 percent of the profit differences explained.

---

[14] This measure is not unreasonable for comparing profitability of firms within an industry where capital investments have similar life spans. It could not be used to compare industries since asset lives will differ significantly.

The only fair conclusion to draw from these correlations is that economies of scale have very little to do with the competitiveness or success of a pipeline. The anecdotes presented earlier are supported by the statistical evidence. The natural monopoly theory would seem to have little or no relevance to the oil pipeline industry.[15]

A recent detailed case study that also supports this conclusion was performed by the Williams Pipe Line Co.[16] Williams inquired as to what it would cost to completely replace its complex ten state pipeline system with more efficient large scale pipe as compared to reproducing the existing system of numerous, small scale pipes constructed over more than five decades. The Williams study is especially significant, since the Williams pipeline system is probably composed of more small parallel pipes than any other U.S. pipeline system. Thus, the economies of scale in pipe size to be gained by replacement as opposed to reproduction may well be greater than for any other system.

Williams did require that the replacement system perform all the services now performed by its existing small pipe system and that its shippers see no difference in operational characteristics or service levels between the two systems. Thus, while there would be considerable savings in pipe cost in replacing several small pipes with one optimal large pipe, the large pipe would require additional terminal and station facilities. This is because the small pipes allow lower pumping rates and smaller batch sizes while the single large pipe would have to accumulate large batches which would pump at much higher rates. As an example, the six small pipes running from Independence to Kansas City would be replaced by a single 22" pipe. This would yield a replacement cost of $37 million compared to a reproduction cost of $91 million. However, terminal costs at Kansas City alone would be raised from $22 million reproduction cost to $37 million with the single large scale pipe.

---

[15] This conclusion is reinforced by multiple regressions of profitability on utilization rate and pipe size. Utilization rate explains up to 28 percent of the variation of profit rates while pipe size is not statistically significant in any of the equations. Optimal size, not large size, appears to be the determinant of profits. Of course, no simple mathematical or statistical model will capture the full complexity of real world competition.

[16] Williams Pipe Line Co., Study of Reproduction versus Replacement Cost (May 1979).

The replacement cost of the entire Williams system using an optimal large pipe system was estimated to be just 10 percent less than the reproduction cost. Of course, if the Williams system did not exist it is doubtful that Williams or any other company would build a system that attempted to offer exactly the services that Williams now offers. What Williams offers its customers is to a certain extent a function of the assets it has inherited from the past. Nevertheless, the point remains that seemingly inefficient systems in terms of pipe size can be utilized so as to make their market value close to their reproduction cost.

Taken all together these findings suggest that building the right-sized line in the right place at the right time with the right package of services is infinitely more important than building a large line.

C. The Importance of Water Transportation

The costs of moving oil by tanker and barge appear to be in the same broad range as the cost of movement by pipeline. We have already indicated that pipeline rates cannot readily be compared to one another because of substantial differences in service. This point holds with even greater force when comparing water transport rates to pipeline rates. Nevertheless, we have computed average revenues per 100 barrel-miles for 17 product pipelines, and barge rates per 100 barrel-miles for a sample of 81 barge hauls of gasoline, jet fuel, kerosene and distillate.[17] The range of pipeline costs was 4.4 to 23.2 cents; the range of barge costs was 2.2 to 31.9 cents. The average pipeline cost was 14.2 cents; the average barge cost was 8.9 cents. Considering that pipelines will generally offer more terminalling service and will usually have faster delivery times, the costs of the competing modes seem to be in the same ball park. But it is a very large ball park, reinforcing our point that service differences make detailed comparisons impossible. Tanker costs should generally be less than barge costs, and hence also competitive with pipelines.

---

[17] The pipeline revenues and barrel miles were obtained from the Oil and Gas Journal (Aug. 11, 1980 issue, pp. 82-86), which in turn obtained them from the ICC Form Ps. The barge rate data were obtained from the Barge Line-Haul Rate Study performed by the Navigation Analysis Center, Corps of Engineers, Fort Belvoir, Virginia. These data were confidentially collected from barge companies. Both sets of data are for the year 1979. Barge rates were inflated by a factor of 1.33 to allow for the fact that barges must typically travel about one-third greater distance to reach the same destination due to the indirectness of rivers.

Overwhelmingly, both the origins and destinations of oil transport have access to major waterways. Of the 59 metropolitan areas with 1975 population over 500,000, 43 have major ports, 6 are within 50 miles of a major port, and 3 are on a short haul of a pipeline whose long haul is to major ports.[18] (The long haul-short haul clause of the Interstate Commerce Act (49 U.S.C.A. Sec. 4) restricts short haul pipeline rates to be no more than long haul rates along the same line unless an exception is granted by the Federal Energy Regulatory Commission.) Thus, for the 59 largest metropolitan areas, 49, representing 90 percent of the population, have water transport available, while 3, representing 2.4 percent of the population, are impacted indirectly by the competition of water transport. Or, put the other way around, only 7 metropolitan areas of the 59, representing less than 8 percent of the population, are insulated from barge and tanker competition.

For the largest refining centers, 38 of the 54 largest, representing 87 percent of refining capacity, have water access.[19]

---

[18] Calculated from Table IV.1.

[19] Calculated from Table IV.6.

Turning to crude oil production, 15 of the 26 largest crude oil producing centers have access to ports or major waterways.[20]

It is not surprising to find, therefore, that barges and tankers account for 48 percent of all ton-miles of refined products transported within the United States, and 41 percent of all crude oil.[21] These statistics do not include shipments of foreign crude oil into U.S. ports, which are about two and a half times as great as domestic water shipments[22] (by tonnage), and which also compete directly with domestic pipelines in the coastal cities.

The domestic barge and tanker industries are essentially atomistic, as shown in Table II.1.[23]

Table II.1

Ownership of U.S. Flag Tankers and Barges, 1977

Industry	Number of Vessels	Share of Capacity of 4 Largest Firms	Share of Capacity of 8 Largest Firms
U.S. Tanker	397	17.9	28.1
U.S. Barge	3,053	15.5	23.6

Source: Calculated from National Energy Transportation, Vol. 1, Current Systems and Movements, Report of the Congressional Research Service (May 1977), pp. 287-294.

---

[20] Calculated from Table IV.5.

[21] 1979 data taken from Association of Oil Pipelines, "Shifts in Petroleum Transportation," (Sept. 17, 1981).

[22] Waterborne Commerce of the United States, 1979, Part 5, National Summaries, p. 7.

[23] All oil companies taken together own less than 13 percent of U.S. barge capacity and less than 20 percent of U.S. tanker capacity.

Facing competition in the vast majority of its markets from transport modes that are highly competitive within themselves, a pipeline is likely to find itself in a competitive environment even if it is the only pipeline serving a particular market. Of the 14 consumer markets served by a single product pipeline, 12 have major ports within 50 miles. Of the 7 refining centers served by a single crude pipeline, all have major ports. Of the three crude producing centers served by a single crude pipeline, all are near major waterways.

It is a fair conclusion that oil pipelines compete as much with barges and tankers as they compete among themselves.

D. Pipeline Competition is Cumulative

Oil pipelines have two characteristics that suggest a continuously increasing level of competition.

First, pipelines have low operating costs relative to total costs. For the year 1976 operating costs (excluding depreciation) of all interstate oil pipelines represented only 44 percent of total revenues[24] (which in the long run must approximately equal total costs). This means that a pipeline would continue to operate even with tariffs far below those expected when the pipeline was in the planning stages.

Second, pipelines are extremely durable and can be continued in operation almost indefinitely if there is sufficient demand for their services. As extreme examples, Eureka Pipe Line still operates a crude line to the Quaker State refinery at St. Mary's, West Virginia that was laid in 1897, while National Transit, one of the pipelines divested by the Standard Oil Trust, operates crude gathering lines in Pennsylvania and New York that were laid prior to the 1911 divestiture decision. Major lines operating today that were laid more than 50 years ago include Williams' 656 mile 10 inch line from New Perryman, Oklahoma to Dublin, Indiana; Amdel's 510 mile 10 inch line from Midland to Port Arthur, Texas; Shell's 482 mile 10 inch line from McCamey, Texas to Cushing, Oklahoma; Arco's 894 mile 8 inch line from Shawnee, Oklahoma to Chicago, and Continental's two 10 inch lines, each running 395 miles from Tulsa to St. Louis.

---

[24] Calculated from Interstate Commerce Commission, Transport Statistics in the United States, 1976, Part 6, Pipelines, U.S. G.P.O., Washington, D.C.

A systematic assessment of the rate of exit and entry of pipelines can be obtained from data found in the Department of Energy pipeline sizing survey. Table II.2 shows that only 4.9 percent of the major segments operating in 1968 had been shut down by 1979, an extremely low rate of attrition. When weighted by capacity or capacity-miles the percentage falls, indicating that the pipeline segments retired were smaller and shorter than the average segment, presumably reflecting their age.[25]

On the other hand, about 40 percent of the segments existing

---

[25] Calculations based on zero throughput as contrasted with zero capacity as the indicator of a shut down pipeline give essentially the same results.

Table II.2

Measures of Exit and Entry of Major Pipeline Segments Between 1968 and 1979

(a) Segments shut down:	4.9%
(b) Throughput capacity shut down:	3.5%
(c) Capacity-miles shut down:	2.7%
(d) Segments added:	39.7%
(e) Throughput capacity added:	38.3%
(f) Capacity-miles added:	40.2%

Source: Computations from DOE Pipeline Sizing Survey

Note: Item (a) is defined as the number of major segments that had non-zero capacity in 1968 but zero capacity in 1979, divided by the number of segments that had non-zero capacity in 1968. Items (b) and (c) are similarly defined but weighted by capacity and capacity-miles, respectively. Item (d) is defined as the number of major segments with zero capacity in 1968 and non-zero capacity in 1979, divided by the number of major segments with non-zero capacity in 1979. Items (e) and (f) are defined as (d), but with capacity and capacity-mile weights, respectively.

in 1979 were not in existence in 1968, and this figure remains about the same if weighted by capacity or capacity-miles. Thus, the rate of entry of new pipeline capacity is on the order of ten times as great as the rate of exit of old capacity.

Combining this with the fact of rapidly declining concentration of ownership, as shown earlier, we are led to the conclusion that competition among oil pipelines has grown historically. Since the causes of this growth, low operating costs and high durability, are characteristics that can be expected to continue in the future, there is a presumption that the level of competition will continue to grow.

III. COMPETITION AND PROFITABILITY

A. Overall Industry Profitability and Risk

The main purpose of acquiring monopoly power is to achieve profits higher than could be earned under competition. Successful monopoly is therefore characterized by high profits. But not all measures of profits can be used to test for monopoly.

Consider an industry composed of a large number of corporations producing identical products. In the absence of collusion or regulation the price of the product sold by these firms would be at the competitive level, as would their rate of return on capital. Let us suppose that the specific facts are as follows:

--each firm sells 100 units of the product per year at $10 for a total revenue of $1000;

--each firm has operating costs of $800 per year, or $8 per unit;

--each firm must have $1,000 of capital permanently invested to produce these results. It is assumed that the capital assets do not depreciate.

Investors in each firm would receive annually $200 (1000 - 800) on their investment of $1,000, or a 20 percent rate of return.

Now consider a different industry composed of a single corporation. The facts are assumed to be as follows:

--the single firm sells 100 units of its product at $11 per unit;

--the single firm has operating costs of $800, or $8 per unit;

--the single firm must have $1,000 of capital permanently invested to achieve these results. Again, the assets do not depreciate.

Investors in this single firm would receive annually $300 ($1,100 - $800) on their investment of $1,000, or a 30 percent rate of return.

It is clear from these two examples that the higher rate of return to the single firm is due entirely to the fact that it charges a higher price for its product, even though its operating costs per unit and capital invested per unit are the same. If the two industries involved were both subject to the same degree of business risk, that is, the variability of demand and operating costs were similar, then one might infer that the higher rate of return and higher prices in the single firm industry, if they were to persist over time, were due to the exercise of monopoly power.

It is this connection between above normal rate of return and higher market prices that suggests the rate of return on capital as a potential indicator of monopoly power. But we must be careful to recognize precisely what this rate of return is: the total return to capital in relation to capital invested. A simple extension of our example above will show why some other measures of rate of return do not imply any connection between rate of return and monopoly power.

Suppose that in the competitive industry above all firms were financed entirely by equity capital and that the federal tax on corporate income is 50 percent. Then the pre-tax returns to capital would still be $200 and the rate of return 20 percent, but the after tax returns would be $100 and the after-tax rate of return would be 10 percent.

Now suppose one firm in this competitive industry chooses to finance itself 50 percent with debt and 50 percent with equity, in other words, with $500 of equity capital and $500 of debt capital. Suppose that the interest rate on the debt is 10 percent. Since the market is competitive the firm must continue to charge the same price for its product and thus will have the same total returns to capital, $200 per year. But now $50 will be paid out as interest to bondholders; $150 will remain, of which $75 will go to equity investors and $75 will go to the federal treasury as income tax.

There are various definitions of rates of return that can be applied to any firm and it is instructive to see how they vary in the above case. One is the total before tax return to capital that we have used above (the 20 percent). Another is the rate of return on equity (after taxes). Yet another is the rate of return on total capital, debt plus equity, after taxes.

Let us compare these various measures of rate of return for the single firm that is partially debt financed with the same measures for a firm that is equity financed.

	Firm Financed 50% debt; 50% equity		Firm Financed 100% equity	
Return on Total Capital (before tax)	20%	[200/1000]	20%	[200/1000]
Return on Equity (after tax)	15%	[75/500]	10%	[100/1000]
Return on Total Capital (after tax)	12.5%	[125/1000]	10%	[100/1000]

It is clear that on any of the after-tax measures the firm that is partially debt-financed has a higher rate of return. This is because the returns to bondholders are not taxed at the corporate level but are rather treated as an expense. Other things being equal, the more a corporation is debt-financed the higher its rate of return on equity and total capital after taxes.

Thus, firms charging the same competitive price in the same markets with the same costs will show different after-tax rates of return depending upon how they are financed. The connection between price and rate of return breaks down when rate of return after tax is used. If we wish to use some measure of rate of return to infer something about the exercise of monopoly power we definitely cannot use simple unadjusted after-tax returns. After all, the consumer does not care how the $200 in capital charges he pays are distributed among stockholders, bondholders and the federal treasury. He cares about the price he pays.

The foregoing suggests that investors would clearly be better off, all other things being equal, the more they finance by debt as opposed to equity. But other things are not equal. This is not the place to go into a discussion of optimal capital structure under the current corporate tax system, but a major constraint on the proportion of debt to total capital is the risk of being unable to cover interest payments. Operating income before taxes (total revenues minus operating expenses) fluctuates over time, raising the problem that the higher the debt portion of capitalization the higher the probability of default and bankruptcy. In general, firms that have stable operating income, such as public utilities, and thus low business risk, can afford relatively more debt, and thus higher financial risk. What the above example showed was that by assuming higher financial risk a firm can earn higher after tax returns to capital. These extra returns or profits, however, have nothing whatever to do with the incidence of monopoly power.

There are essentially two ways of measuring rates of return so that correct inferences can be drawn about market power or monopoly. One is to do as we have done above and examine before-tax returns because these ignore debt structure and taxation. Another is to pretend that each firm was entirely equity financed and deduct from the interest payments the federal income tax that would have been paid had the corporation been entirely equity financed. The net income plus after-tax interest divided by the total capital invested would give the so-called "de-levered" or tax-adjusted rate of return.

In the numerical example above both the equity financed firm and the partially debt financed firm would have the same 10 percent de-levered return on total capital. There is some reason to prefer this de-levered return to the before tax returns in comparing firms in different industries. One reason is the existence of an investment tax credit which impacts differentially on various firms and industries. Ignoring taxes altogether ignores this differential tax treatment and thus leads to a less valid comparison.

In all of this it has been assumed that business risk for each industry and firm is held constant. In actuality different firms and industries have different business risks and these must also be adjusted for. Thus, even de-levered rates of return may differ and yet imply nothing about monopoly power if the firm with higher returns has an appropriately higher business risk.

The adjustment for capital structure we have been discussing is important in any case, but takes an extraordinary importance in the oil pipeline industry because of two unique institutional features of the industry. First, oil pipeline companies are often subsidiaries of oil companies, who are in turn significant shippers on, that is, customers of, the pipeline. Second, many of these vertically integrated pipeline companies are signatories to the Elkins Act Consent Decree with the Department of Justice that restricts the dividends they can pay to stockholders, that is, the parent oil companies, to 7 percent of capitalization, (more precisely, ICC-FERC valuation). Income earned in excess of the 7 percent is transferred to a surplus account and is excluded from the rate base that future returns are based on. Since a 7 percent rate of return on capital after taxes is far below a normal competitive return, oil companies are induced artificially to finance oil pipelines heavily with debt because returns to bondholders are not considered in the restriction. This has the effect of giving oil pipelines artificially higher financial risk and artificially higher after-tax returns on equity and total capitalization. Given the degree of business risk associated with oil pipelines the resulting capital structure would result in an extremely high degree of overall risk for the pipeline company on a stand-alone basis. To reduce the probability of default and bankruptcy, and thus reduce the cost of debt, oil companies as shippers enter into agreements with the pipeline subsidiary wherein the risk of low demand is borne by the owner-shipper in the form of throughput guarantees and deficiency payments, thereby reducing business risk to the pipeline company, or more precisely, transferring business risk from the pipeline to the parent company.

This means that we must not only make adjustments for the artificially high debt structure of the industry induced by the consent decree, but also recognize that the usual measures of business risk such as rate of return variability and the like, understate the actual degree of business risk assumed by the owners.

The foregoing leads us to consider the de-levered rate of return on oil pipelines in comparison with that of other industries, and the risk inherent in the oil pipeline industry in comparison with that of other industries.[1]

---

[1] A further point: The numerical illustrations used thus far consider only non-depreciating capital assets, steady-state markets and a stable price level. In the real world of depreciating assets, growing and fluctuating markets, and inflation, the adjustments that accountants make will not generally prove totally satisfactory. Even when adjusted for leverage as we have insisted, the accounting rate of return does not precisely estimate a true economic rate of return. With regard to measuring the competitiveness of firm or industry rates of return, a reproduction or replacement cost of capital is far more relevant than original cost. But, unfortunately, there is not enough such data available from other industries. With the data available the above is the best that can be done. See E. Solomon, "Rate of Return Concepts and

Both of these issues have already been addressed. Rodney Harrill has estimated the de-levered rate of return on total assets (excluding non-pipeline assets and income) for oil pipeline companies for the years 1973-1977, and the same rate of return for other industries covered in the Forbes survey. Tables III.1 and III.2 reproduce Attachments D and E from Harrill's prepared statement in the Williams case.[2] It is evident from that table that oil pipeline companies earn approximately normal rates of return on capital. Indeed, weighted by size of pipeline, company profitability is decidedly below the average of the 2000 other industrial firms covered by the Standard and Poor's Compustat tapes and the 1300 companies covered by Forbes.

With regard to risk two approaches can be taken. The traditional method is to examine volatility or variability of cash flow or rate of return. Modern financial theory suggests examining the relationship between changes in the value of an investment and changes in the value of a broad portfolio of investments. The less responsive a particular investment's value is to the value of all investments, the lower the risk.

Harrill has computed the variability of de-levered rates of return of oil pipeline companies and other industries. The re-

---

Their Implications for Utility Regulation," Bell Journal of Economics and Management Science, Vol. 1, No. 1 (Spring 1970).

[2] Verified statement of Rodney Harrill, Federal Energy Regulatory Commission, Williams Pipe Line Company Proceeding, Docket Nos. OR 79-1, et al.

Table III.1

COMPARATIVE RATES OF RETURN ON TOTAL CAPITAL PETROLEUM PIPELINES VS. OTHER INDUSTRIES

Industry	Medians of 5-Year Averages 1973-1977 %
Personal Products	14.0
Health Care	13.6
Energy	12.0
Finance: Insurance	11.8
Electronics & Electrical Equipment	11.4
Aerospace & Defense	11.3
Industrial Equipment	11.2
Leisure	11.1
Construction: Contractors	11.0
Chemicals	10.8
Finance: Banks	10.4
Wholesalers	10.4
Food & Drink	10.2
Forest Products & Packaging	10.1
*Petroleum Pipelines	10.0
Automotive	9.8
Multicompanies: Multi-industry	9.6
Information Processing	9.5
Household Products	9.0
Metals: Non-ferrous	8.9
Supermarkets	8.9
Multicompanies: Conglomerates	8.7
Retail Distribution	8.7
Apparel	8.5
Metals: Steel	8.4
Construction: Building Materials	8.1
Finance: Consumer	7.6
Utilities: Natural Gas	7.4
Transportation: Surface	6.1
Utilities: Electric & Telephone	6.0
Transportation: Airline	4.3
All Industry Median	9.7

Sources:
Pipelines: Interstate Commerce Commission, Form P, 1973-1977.
Other Industries: Forbes, 30th Annual Report on American Industry, January 9, 1978, Volume 121, No. 1.

*Included for purposes of comparison only.

Table III.2

COMPARATIVE RATES OF RETURN ON TOTAL CAPITAL

(Five-Year Averages for 1973-1977)

	Mean	Median	Mean Weighted Average
79 Oil Pipelines	9.5	10.0	7.5
171 Utilities	6.9	6.6	6.7
2,000 Other Industrial Firms	9.9	9.5	10.7

Sources: 79 oil pipeline companies: Interstate Commerce Commission, Form P's, 1973-1977

All others: Standard and Poor's Compustat Services, Inc.

sults are shown in Table III.3. In addition he has, by nonlinear regression, established the relationship between mean industry rate of return and mean industry variance. This is shown graphically in Fig. III.1. This evidence shows that the oil pipeline industry rate of return is approximately average, its variability across companies is approximately average, and its place in the variability-rate of return relationship is just about where it is expected to be.

Another traditional measure of risk is the variability of a company's de-levered return on total capital over time. Using the same time period as Harrill, 1973-1977, Gerald Pogue found the average time series standard deviation of oil pipeline companies to be 3.29, while that of 18 other industries was 3.47.[3] Over the longer period 1962-1976, the average time series standard deviation for oil pipeline companies was 3.89 compared to 4.51 for 18 other industries.[4] In both cases, these are slightly below the average and median of all industries covered.

Measures of risk based on modern portfolio theory require data on market values of the companies involved. Since oil pipeline companies are almost all subsidiaries of oil companies, railroads, or conglomerates, no such direct computation of this nondiversifiable risk is possible. Pogue, however, using relation-

---

[3] Verified statement of Gerald Pogue, Federal Energy Regulatory Commission, Williams Pipe Line Company Proceeding, Docket Nos. OR79-1 et al., Exhibit GAP-5.

[4] Ibid., Exhibit GAP-7.

Table III.3

INDUSTRY GROUP MEAN RETURNS AND VARIANCE
(Five Year Period 1973-1977)

Industry	Mean	Variance
Finance: Banks	17.68	27.11
Aerospace and Defense	13.47	99.04
Chemicals	12.86	35.39
Energy	12.21	38.05
Information Processing	12.17	85.14
Personal Products	12.11	48.80
Health Care	11.58	45.93
Leisure	11.19	34.50
Electronics and Electrical	10.99	18.01
Steel	10.73	53.20
Metals	10.52	40.73
Automotive	10.25	20.54
Forest Products and Packaging	9.96	11.21
Industrial Equipment	9.92	19.64
Household Products	9.69	27.04
Food and Drink	9.64	21.84
Retail Distribution	9.54	31.50
Supermarkets	9.50	34.40
*Oil Pipelines	9.50	23.70
Wholesalers	9.16	19.88
Construction Contractors	9.13	33.67
Construction: Building Materials	8.86	22.76
Multicompanies: Conglomerates	8.70	10.15
Finance: Insurance	8.20	4.82
Transportation: Surface	8.06	17.27
Apparel	8.05	18.78
*Utilities	6.90	2.00
Finance: Consumer	6.34	8.15
Transportation: Airline	5.96	20.85

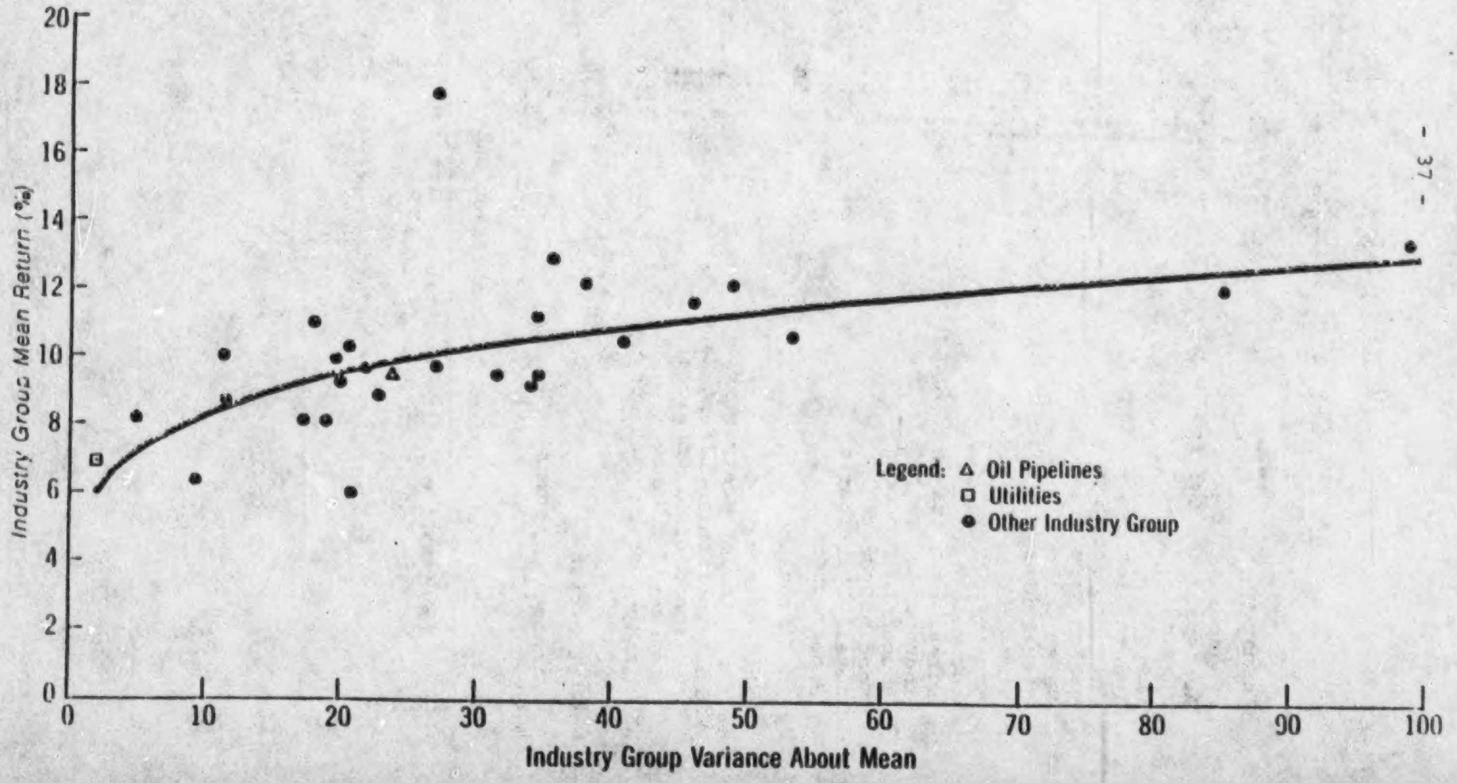
*Included for purposes of comparison only.

Sources: Oil pipeline companies: Interstate Commerce Commission, Form P's, 1973-1977.

All others: Standard and Poor's Compustat Services, Inc.

Figure III.1

RELATIONSHIP OF INDUSTRY MEAN
RATE OF RETURN TO INDUSTRY
VARIANCE (PERIOD 1973-1977)



ships between accounting and market data in other industries, estimates a total asset "beta," a measure of risk from the point of view of modern portfolio theory. The results are shown in Table III.4.[5] From this point of view oil pipeline companies are found to have a slightly above average "beta" when compared to 18 other industries, and should be expected to earn a slightly above average rate of return.

The foregoing studies are, in my opinion, the most relevant evidence presented thus far on the appropriateness of oil pipeline profitability in relationship to risk. And they show a level of profitability consistent with a competitive oil pipeline industry.

However, these studies understate the degree of risk actually faced by investors in oil pipelines because joint venture pipelines, which represent a large fraction of all pipeline companies, are normally organized using throughput and deficiency agreements. The statistical variability of rates of return to these oil pipeline companies is reduced by the extent to which throughput guarantees induce owner-shippers to ship on lines that they would not otherwise choose to ship on. Since these guarantees will come into effect when demand on the pipeline is low these "compelled" or "induced" shipments will prop up the rate of return of the low profit lines, thus cutting off the lower end of the distribution of rates of return. Obviously, the value of

---

[5] Ibid., Exhibit GAP-7.

Table III.4

THE REQUIRED REAL RATE OF RETURN FOR OIL PIPELINE ASSETS AND OTHER INDUSTRIES

31 December 1978

Industry Name	Number of Firms in Sample	Total Asset Beta
Electronic Components	47	1.49
Crude Petroleum and Natural Gas	42	1.07
Retail-Department Stores	44	0.95
Petroleum Refining	42	0.95
Motor Vehicle Parts	36	0.89
Chemicals and Allied Products	25	0.88
Metal Mining	29	0.87
Oil Pipelines	72	0.86
Food and Kindred Products	40	0.84
Trucking	28	0.83
Textile Mill Products	40	0.82
Paper and Allied Products	20	0.82
Retail-Grocery Stores	37	0.76
Airlines	29	0.75
Blast Furnaces and Steel Works	34	0.66
Railroads	17	0.61
Natural Gas Transmission	12	0.52
Telephones	18	0.50
Electric Services	115	0.46
Mean Values*	36	0.81

*Excludes oil pipelines.

these shipments to the owner-shipper is less than their payment to the pipeline company or the owner would not have had to be compelled to ship. (The owner-shipper can normally make deficiency payments in lieu of shipping. This would involve paying into a prepaid transportation account which can be used to cover future shipments, if and when they should occur. This is usually a poorer alternative and thus a less common way of complying with the agreement. However, substantial deficiency payments have been made to Seaway and Explorer Pipeline companies for several years.)

Evidence lending support to the existence of this statistical bias can be found by looking ahead to Figures III.4 and III.5. We see there that pipeline companies coming under the Elkins Act Consent Decree have as a group disproportionately fewer rates of return at the lower end of the spectrum as compared to companies not under the consent decree. Twenty-three of the thirty-five companies under the consent decree are joint ventures, while only one of the seventeen non-consent decree companies is a joint venture.

I conclude from the foregoing that oil pipoline companies earn approximately normal rates of return while experiencing levels of risk probably somewhat above the average. Again, this is certainly consistent with a competitive oil pipeline industry.

B. Why Are Oil Pipeline Profits Normal?

There are four possible answers to this question:

(1) because the industry is competitive;

(2) because the industry has been regulated by the Interstate Commerce Commission (ICC) and the Federal Energy Regulatory Commission (FERC);

(3) because the industry has been constrained by the Elkins Act Consent Decree;

(4) some combination of the above.

If industry profits have been restricted primarily or solely by competition, then removal of the other constraints will have little or no effect on industry profits, shipping tariffs, and consumer prices.

How do we know to what extent each of the three forces restricts profits? This question can be answered to a certain degree because each of the three potential restrictions applies to a uniquely defined rate of return.

We have just seen how the de-levered rate of return on total capital is related to competition and how that return and its distribution over companies and over time were essentially what they should be if oil pipelines were competitive and unregulated.

To the extent that the ICC has restricted rates of return, and hence tariffs, such restriction would be based on the rates of return judged to be reasonable in the Reduced Pipe Line Rates, Minnelusa, and Petroleum Rail Shippers cases.[6] In these cases rates of return of 8 percent on valuation for crude oil pipelines and 10 percent on valuation for petroleum product pipelines were held to be reasonable. That these rates of return might not have been regarded as an absolute ceiling by oil pipeline companies is suggested by the following:

---

[6] Reduced Pipeline Rates and Gathering Charges, 243 ICC 115 (1940); Minnelusa Oil Corp. v. Continental Pipeline Co., 258 ICC 41 (1944); Petroleum Rail Shippers' Association v. Alton and S.R.R., 243 ICC 587 (1941).

(1) the precise method of calculating the valuation--the denominator in the rate of return calculation--was not revealed by the ICC staff until March 25, 1977;[7]

(2) the definition of income--the numerator in the rate of return calculation--was not made clear until November 5, 1975;[8] up to then some companies believed that interest was not included in income;

(3) it was being argued by the pipeline industry that the 8 and 10 percent rates of return judged reasonable in the 1940s were too low in the high capital cost environment of the late 1970s;[9]

(4) some believed that the 8 and 10 percent were merely guidelines for the pipeline industry as a whole and not a constraint on individual companies.[10]

Thus, whether oil pipeline companies regarded the 8 and 10 percent figures as ceilings, guidelines, or as unreasonable in the late 1970s is an empirical question.

---

[7] Testimony of Jesse C. Oak, valuation engineer, in Valuation of Common Carrier Pipelines, Docket No. RM 78-2 (March 25, 1977).

[8] Petroleum Products, Williams Brothers Pipe Line Company, 351 I.C.C. 102 (1975).

[9] For example, Petroleum Products, Williams Brothers Pipe Line Company, 355 I.C.C. 479 (1976).

[10] Thomas Spavins, Economist in the Antitrust Division of the Department of Justice, adopted this interpretation in his 1979 paper in Mitchell, Oil Pipelines and Public Policy, op. cit., pp. 83-85. Using the estimates to be described below, the industry has easily met this standard. An upward-biased estimate of average industry rate of return (as defined by the ICC) is only 7.4 percent.

To address this question we have computed estimates of ICC defined returns for all pipeline companies with appropriate data available in the Williams Companies data base. These rates of return are defined as follows:

$$\frac{(\text{Operating Income} - \text{Interest})(1 - \text{STR}) + \text{Interest}}{\text{Total ICC Valuation}}$$

where STR is the applicable federal statutory tax rate. Since each company will have different applicable state income tax rates, and these are not known to the author, these estimated returns will be biased upward in varying degrees. I conjecture that this upward bias will be about three or four-tenths of a percentage point on average.

We have calculated the average of these estimated ICC-defined rates of return for the years 1975 to 1979 for all companies with appropriate data available for at least 3 of the 5 years. To compare these average rates of return to the ICC "reasonable" rates it is also necessary to estimate the extent to which each pipeline company is a crude pipeline company or a petroleum products pipeline company, since obviously many pipeline companies own both crude and product lines. I am aware of no guidance from the ICC on how "mixed" pipeline companies are to be treated. I have therefore weighted the ICC "reasonable" rates of return on crude and product lines by the barrel-miles of each category of throughput over the period 1975 to 1979. Thus, a crude pipeline would have a "reasonable" rate of return of 8 percent, a product pipeline a "reasonable" rate of return of 10 percent, and a mixed pipeline system a weighted average of 8 and 10 percent.

Figure III.2 plots the deviations of estimated rates of return on ICC valuation from the applicable "reasonable" rate. If ICC regulation was interpreted by the industry as a ceiling, and if this ceiling actually restricted pipeline tariffs and profits, then the deviations should be negative and the distribution should be sharply peaked at close to zero, with the remaining observations skewed to the left. Obviously, the actual distribution does not look like this. It is a rather normally shaped frequency distribution with no sharp peak at just below zero. While some companies may have interpreted ICC "reasonable" rates of return as a ceiling, and may have been constrained by this ceiling, it is obvious that this was not typically the case. In general, it appears that ICC regulation was not a constraint on oil pipeline profits.

And the consuming public is fortunate that it was not. If the guideline rates had been a rigid ceiling the expected returns to investors would have been far below the level required to attract investment for the average pipeline. Only the relatively low-risk lines would have been built.[11] Much of the economic advantage of the current pipeline system would have been lost, and transport costs and consumer prices would be higher.

---

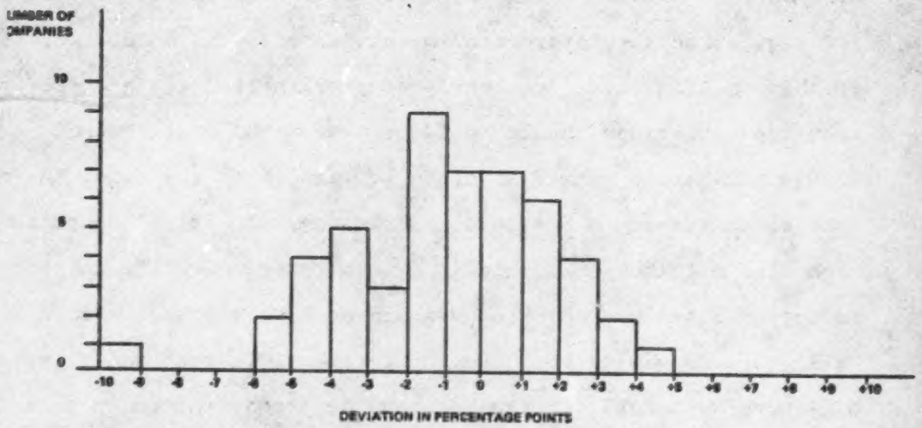
[11] See the verified statement of E. Mitchell before the Federal Energy Regulatory Commission, Williams Pipe Line Company Proceeding, Docket Nos. OR 79-1 et al.

Figure III.2

Deviation of Estimated ICC-Defined Returns

From Estimated ICC Guidelines

Average 1975-1979



Source: The Williams Companies; DOE Petroleum Pipeline Sizing Survey; Computations by Author (see text).

Does the Elkins Act Consent Decree constrain profits and tariffs? This question is not as easy to answer. The maximum consent decree rate of return is 7 percent based on the following definition:

$$\frac{(\text{Operating Income - Interest})_t(1 - \text{STR}_t)}{\text{ICC Valuation Owned and Used}_{t-1}},$$

where t refers to the current year.

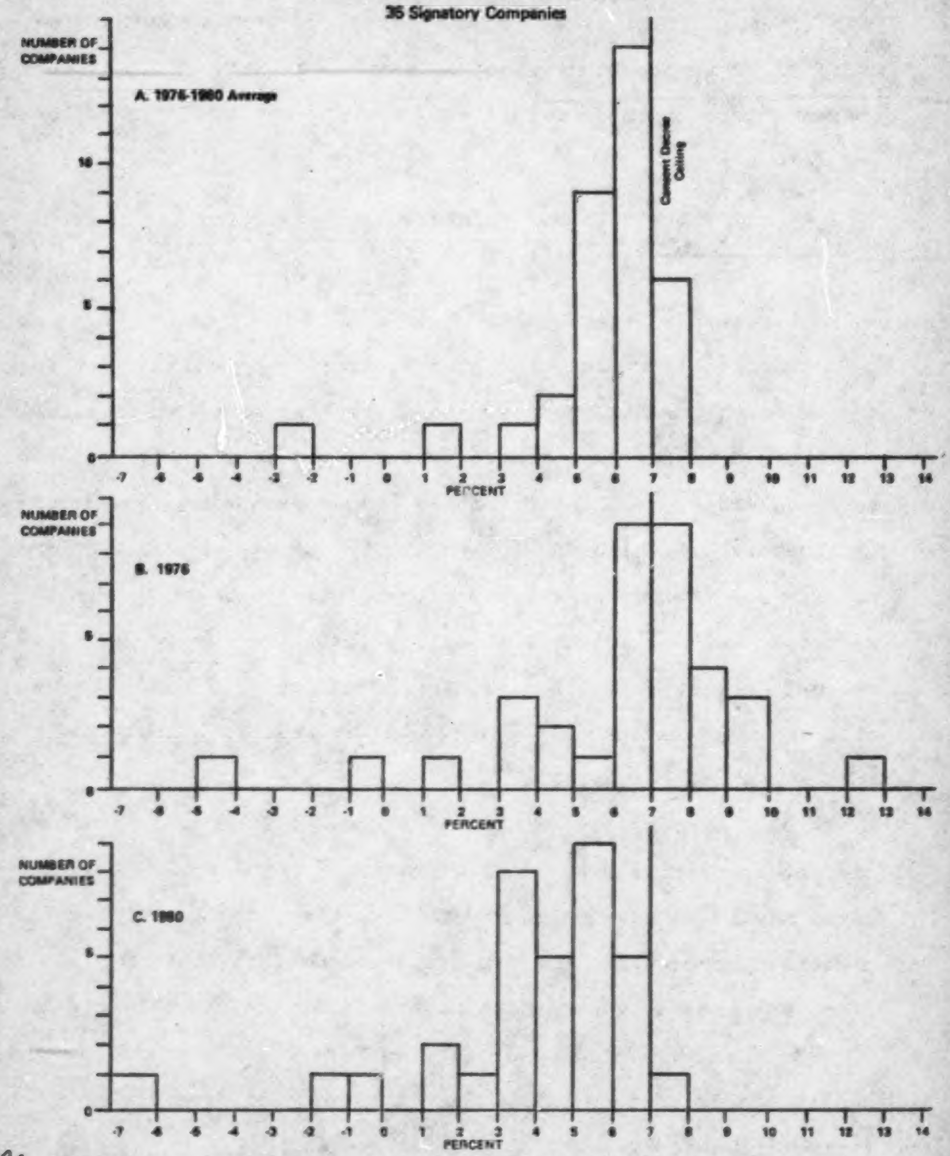
Figure III.3 plots the distribution of actual consent decree returns for 35 signatory companies that made data available for these computations, and for which all 5 years, 1976 to 1980, were available. (A listing of the companies included is given in Appendix D.) Allowing for the fact that the consent decree permits a 3 year carry forward of earnings less than 7 percent, we are led to believe that signatory companies comply with the consent decree. The concentration of companies around 7 percent also suggests that the consent decree may well be a constraint on some signatory companies.

But how many companies does it constrain, and is it a constraint on profits or on capitalization? As we noted earlier, firms may to some extent avoid being constrained on tariffs and profits by increasing the proportion of debt in their capitalization, and signatory companies have in fact adopted very high debt to equity ratios. The possibilities for avoiding tariff and profit constraints by issuing large amounts of debt are illustrated in Table III.4.

Figure III.3

Actual Consent Decree Returns, 1976-1980

35 Signatory Companies



Source: Confidential Company Data Collected by Arthur Young & Co., Tulsa, Oklahoma.

Table III. 4

MAXIMUM REVENUE THAT CAN BE ACHIEVED BY A PIPELINE UNDER THE ELKINS ACT CONSENT DECREE ASSUMING VARIOUS INTEREST RATES AND CAPITALIZATIONS

% Debt	0	50	50	50	90	90	90
% Interest Rate	-	5	10	15	5	10	15
ICC Valuation = Book Value*	1000	1000	1000	1000	1000	1000	1000
Net Income (.07 ICC Valuation)	70	70	70	70	70	70	70
Corporate Income Tax (at 50%)	70	70	70	70	70	70	70
Depreciation (.04 ICC Valuation)	40	40	40	40	40	40	40
Interest on Debt	0	25	50	75	45	90	135
Operating Cost	100	100	100	100	100	100	100
Maximum Revenue	280	305	330	355	325	370	415
Return on Total Capital (de-levered)	7.00	8.25	9.50	10.75	9.25	11.5	13.25

*This equation will hold only for a new pipeline, or in the absence of inflation. In an inflationary period old pipelines will have ICC valuations in excess of book value but less than replacement or reproduction cost.

Whether or not the decree is restrictive on tariffs depends on several things. When interest rates are low the restriction permits an after-tax return on total capital that is high relative to the interest rate, if the firm can finance at 90 percent debt. When interest rates are high, as at present, the after tax return allowed falls to less than the interest rate. Furthermore, as the pipeline ages, its ability to charge competitive rates will decline. This is because the book value of assets declines and the inflation adjustment in ICC valuation is only partial, while competitive rates of new lines will be rising with inflation. Generally speaking then, the consent decree is more likely to be restrictive on tariffs of older pipelines and during periods of high interest rates.

One way to gauge the degree of constraint of the consent decree on signatory companies is to compare their consent decree defined rates of return to those of pipeline companies not subject to the decree. If non-signatory companies are generally in compliance with the decree without the necessity of being in compliance, and achieve this without heavy debt-equity ratios, then the consent decree would seem less restrictive. While data on actual consent decree returns are not available for non-signatory companies, we are able to estimate them from Williams Companies data,[12] but again they are systematically upward-biased because of a lack of data on applicable state income tax rates. Nevertheless, if we make the same upward-biased estimates for both signatory and non-signatory companies the relative position of the distributions of rates of return should be approximately correct.

---

[12] The criteria for a pipeline company being included in our rate of return analyses are that the company have sufficient data available in the Williams Companies data base to make the calculations, and that the company not be an owner of the Trans

Figure III.4 shows that non-signatory companies typically have lower consent decree defined returns than signatory companies. Furthermore, non-signatory companies' rates of return also peak around the 7 percent level, although that level has no particular significance to non-signatory companies. This suggests that the bunching of signatory companies around the 7 percent level may be coincidentally what a competitive market would dictate in the late 1970s.

Strong support for this view comes from the considerable year to year variation in consent decree returns shown in Fig. III.3, parts b and c. Since a shortfall in earnings below the

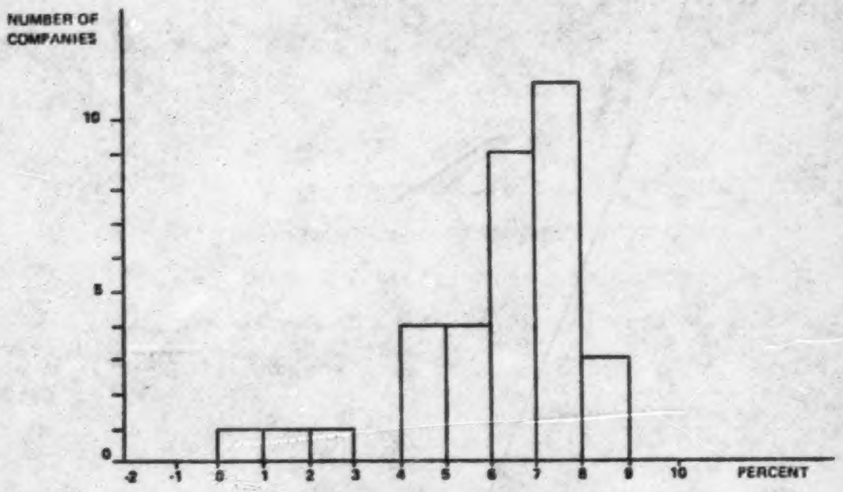
---

Alaska Pipeline. In the Harrill study all companies with 1977 revenues less than $2.5 million were also excluded, as were non-pipeline income and non-pipeline assets of the companies included. In both the Harrill study and in my analysis companies owning portions of the Trans Alaska Pipeline System (TAPS) were excluded because TAPS was being constructed during the period of time considered and there was capital invested but no revenues for a considerable period of time. In addition, my study does not encompass TAPS, and TAPS income and assets would dominate its owners' rates of return. The companies excluded for this reason include the pipeline subsidiaries especially created to share in TAPS, plus Amerada Hess, Arco, BP, Exxon and Sohio. An exception to this exclusion is Fig. III.3 which analyzes actual consent decree returns for the purpose of establishing compliance and which does include TAPS companies.

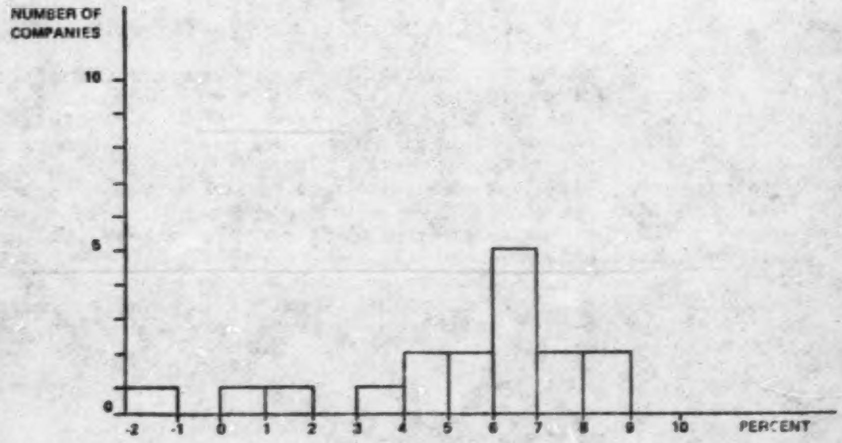
Figure III.4

Estimated Consent Decree Returns
Average 1975-1979

A. Signatory Companies



B. Non-Signatory Companies



Source: The Williams Companies

7 percent level may be carried forward, but not backward, a pipeline significantly constrained by the decree would, on facing a reduction in the demand for its services, raise its tariffs in order to maintain revenues at the 7 percent level. To do otherwise would imply shifting current income into the future, a decidedly uneconomic choice, especially in a time of high interest rates. Looking at consent decree returns in detail I find that only 4 pipelines out of 35 earned 6 percent or more each year from 1976 to 1980. (And one of these 4 companies averaged 7.7 percent for the five years indicating that it must have had substantially lower returns prior to 1976 to be in compliance with the consent decree.) Thus, by this test signatory companies significantly constrained by the decree appear to be very few.

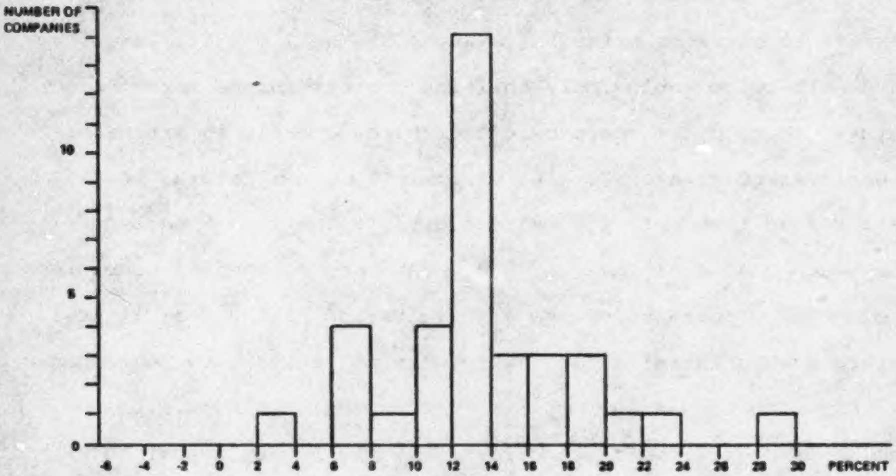
Another approach is to examine the de-levered rate of return on total capital for both signatory and non-signatory companies. Figure III.5 shows that signatory companies are somewhat more profitable than non-signatory companies. Table III.5 shows that average rates of return for signatory companies is about the same or somewhat higher than those of non-signatory companies, depending on the measure.

The foregoing suggests at the least that there must be a preponderance of signatory companies for which the consent decree is not a constraint on tariffs or profits. If we add to these the many non-signatory companies that are not constrained by the consent decree, and recognize that barge and tanker rates are not regulated at all, we arrive at the view that the typical

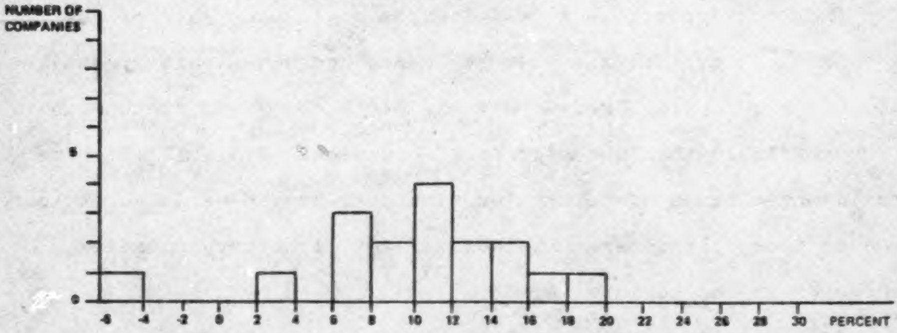
Figure III.5

Ratio of Net Income Plus After-Tax Interest to Total Capital
Average 1975-1979

A. Signatory Companies



B. Non-Signatory Companies



Source: The Williams Companies

Table III.5

RATES OF RETURN OF PIPELINE COMPANIES 1975-1979
CLASSIFIED BY CONSENT DECREE STATUS

	Company Classification	
	Consent Decree	Non-Consent Decree
Estimated Consent Decree Return		
No. of companies	34	17
Avg. return	6.28	5.28
Delevered Return on Total Capital		
No. of companies	35	17
Avg. return	13.0	10.2
Operating Income/Reproduction Cost New		
No. of companies	34	17
Avg. return	10.3	9.9

Note: For a detailed listing of companies by classification see Appendix C.

market served by oil pipelines would have at most only a small portion of the competitors constrained. If this small constrained portion is forced to set rates below the prevailing market level, then they would tend to find not that their competitors would meet their low tariffs, but rather that demands for their services would be in excess of capacity. This is especially true since a pipeline bumping against the consent decree ceiling is also likely to be one with high utilization.[13] Thus, tariff constraint by the consent decree should tend to be marked by full capacity utilization and prorationing.

The rather small incidence of prorationing among all pipelines, and the fact that independent (usually non-signatory) pipelines are more often prorationed than major company (usually signatory) pipelines,[14] suggests that tariffs constrained by the consent decree are uncommon.

The upshot of all this is that, with some possible exceptions, oil pipelines appear to be constrained in tariff-setting principally by the extent of competition.[15] Since the level of profits is normal, we are led to believe that the industry is competitive. Since competition, not regulation, is the primary constraint on profits and tariffs, removal of regulation would have little or no long term effect on profits or tariffs.

---

[13] See Sec. II. b. above, footnote 15.

[14] See my comments in Statement of Sun Company, Inc., In Response to the Federal Trade Commission's Notice of Opportunity to Submit Comments Regarding a Proposed Rule Making Proceeding with Respect to Petroleum Pipelines, pp. 55-90, Filed Oct. 18, 1979 with the FTC.

[15] One other potential constraint should be mentioned. From June 1978 through the end of 1980 FERC initiated a series of tariff suspensions ranging up to 7 months in length. These suspensions do not affect our analysis for the following reasons: (1) the Harrill data covers only up to 1977;

---

(2) the number of lengthy suspensions was few;
(3) the incidence of suspensions appears essentially random with respect to consent decree and non-consent decree companies;
(4) after the handful of initial suspensions on June 30, 1978 companies could avoid constraint by filing tariff increases in advance of the date they wished them to go into effect.

IV. PIPELINE RIVALRY IN NARROWLY DEFINED MARKETS

The evidence presented thus far suggests an industry ruled primarily by competition. However, an issue can be raised as to whether there may not exist within the general regime of competition pockets of monopoly power that would be better governed by regulation. Obviously, these pockets could not be numerous or large, or they would have affected the aggregate statistics. Nevertheless, it can be argued that there are niches in the overall picture that have the appearance of monopoly, where, for example, a producing or refining or consuming area is served by a single pipeline. The purpose of this chapter is to systematically examine niches that display superficial characteristics of monopoly to determine whether appearance faithfully reflects reality.

The first question that arises is how we define these small markets. There are essentially two possibilities: one is to look at pipelines competing in a corridor, that is, all the pipelines running from Oklahoma to Chicago; or two, to look at the markets served by pipelines, that is, Oklahoma and Chicago. The latter approach seems the more valid. As we discussed in Section II, there may be only one pipeline from A to B, but if the pipeline is not in a position to significantly affect the price of oil at A or B, then it cannot be said to wield monopoly power.

The second issue concerns the kind of markets to examine. There are essentially four interfaces between pipelines and shippers: pipelines take oil from the crude field (crude collection); pipelines deliver oil to refineries (crude delivery); pipelines collect oil at refineries (product collection); and pipelines deliver oil to consuming markets (product delivery).

A third issue is the scope of the markets. We are not necessarily concerned with what is called the "relevant" market in an antitrust sense. Rather, we want to deliberately define markets narrowly so that we have abundant opportunity to observe markets that have superficial monopoly characteristics. These would properly be called mini-markets, micro-markets, or market niches, but for simplicity we will usually just call them markets from here forward.

We define our consuming markets to be all Standard Metropolitan Statistical Areas (SMSAs) in excess of 500,000 population in 1975. Where Standard Consolidated Statistical Areas (SCSAs) exist we use those instead. This gives us 59 consumer markets.

For refining and crude production centers we started with the largest groupings of crude production and refining capacity until we achieved 98 percent of U.S. crude production capacity (excluding Alaska) and 92 percent of U.S. refining capacity. This yields 27 crude production centers and 48 refining centers.

In identifying competitors we have also been conservative, partly as a matter of policy and partly due to a lack of data. To simplify the analysis and reduce the amount of work involved, we have not systematically examined competition from trucks, railroads or natural gas pipelines. Yet the volumes carried by these transport modes suggest that they play a significant competitive role. We have not considered competition from "private" pipelines, that is, lines that ship only their owner's oil. In general, these lines are not included on the standard pipeline maps. Yet there is reason to believe that they also play an important competitive role. Who owns the oil going through a particular pipeline is a legal, not an economic distinction. With the use of purchases, sales, and exchanges of oil, private lines can perform the same competitive function as a common carrier pipeline.

In defining these markets we have leaned toward narrow definitions. For example, the refining center at Port Arthur, Texas, is defined as distinct from the Houston refining and consuming market; Baton Rouge refining is distinct from New Orleans refining and consuming; Anacortes refining is distinct from Seattle refining and consuming.

To reiterate, this gives us a considerable opportunity to discover monopoly niches if they exist. Recognizing that refining centers have two markets -- one product collecting and one crude delivering -- there are 182 market niches covered.

The most obvious characteristic of monopoly is the existence of one seller or one buyer. We therefore define the superficially "worst" cases to be those markets where only one pipeline collects or delivers. When we examined consuming markets and producing centers we came up with so few "worst" cases, that we went further and defined a second set of "worst" cases to be all those markets where only two pipelines deliver or collect and where the market has no "major port" or is not on a "major waterway," (as these are defined by the U.S. Army Corps of Engineers). Thus, we cover all superficial cases of monopoly, and where these are few, all superficial cases of duopoly where there is no immediate competition from water transport.

A. Consuming Markets

Table IV.1 outlines the general characteristics of pipeline competition in consumer markets. Table IV.2 focuses on the scope of water transport in these markets. We find that 80 percent of the markets covered and 90 percent of the population in the markets covered have access to water transport nearby. Since barge and tanker shipments have costs per ton-mile in the general range of pipelines, and since these industries are themselves highly competitive, we are led to the presumption that overwhelmingly the consumer markets served by pipelines have competitive transportation of oil regardless of the state of competition among pipelines.

From the point of view of a pipeline delivering refined product its rivals would be: other pipelines delivering product; local refineries, which may be served by local crude, crude pipelines, or water transport; water delivery of product. One may view the pipeline delivering product as competing with a local refinery, or the transport means that serve that refinery. In counting the number of effective rivals we obviously cannot count both refineries and crude pipelines. Since we will be explicitly

Table IV.1

Characteristics of Consumer Markets

SMSA - SCSA	1975 Population (000)	Pipeline Companies Delivering Product	Pipeline Companies Collecting Product	Pipeline Companies Delivering Crude	Pipeline Companies Collecting Crude	Refineries	Water Access 0 = none 1 = port 2 = 50m to port	Product Lines	Crude Lines
East									
Buffalo	1327	2	1	1	1	2	1	2	3
Rochester	971	3	2	0	0	0	1	3	0
Syracuse	648	3	1	0	0	0	1	3	0
Albany	798	1	0	0	0	1	1	1	0
Boston	3914	1	0	0	0	0	1	1	0
Worcester	648	2	0	0	0	0	2	2	0
Springfield	597	2	0	0	0	0	1	2	0
Providence	904	0	1	0	0	0	1	1	0
Hartford	1063	2	1	0	0	0	1	2	0
New Haven	760	0	1	0	0	0	1	1	0
Bridgeport	799	0	0	0	0	0	1	0	0
New York	16332	3	2	0	0	3	1	7	0
Allentown	624	5	4	0	0	0	2	7	0
Philadelphia	5643	3	6	0	0	7	1	11	0
Baltimore	2148	1	1	0	0	2	1	2	0
Washington, D.C.	3022	2	1	0	0	0	1	3	0
Norfolk	773	1	0	0	0	1	1	1	0
Richmond	585	2	2	0	0	0	1	2	0
Nashville	748	1	0	1	1	0	1	2	1
Charlotte	573	2	2	0	0	0	0	4	0
Greenville	525	2	2	0	0	0	0	4	0
Atlanta	1790	2	2	0	0	1	0	5	0
Birmingham	791	2	2	1	0	3	1	5	1
Jacksonville	693	0	0	0	0	0	1	0	0
Orlando	583	1	0	0	0	0	2	2	0
Tampa	1348	0	1	0	0	0	1	1	0
Miami	2288	0	0	0	1	0	1	0	1

Table IV.1 (Continued)

SMSA - SCSA	1975 Population (000)	Pipeline Companies Delivering Product	Pipeline Companies Collecting Product	Pipeline Companies Delivering Crude	Pipeline Companies Collecting Crude	Refineries	Water Access 0 = none 1 = port 2 = 50m to port	Product Lines	Crude Lines
West									
Seattle	1822	1	1	0	0	4	1	3	0
Portland	1083	1	1	0	0	1	1	2	0
San Francisco	4592	0	2	3	0	6	1	4	3
Sacramento	880	2	1	0	0	0	1	3	0
Los Angeles	10350	0	2	2	1	20	1	2	5
San Diego	1585	1	0	0	0	0	1	1	0
Honolulu	705	0	0	0	0	2	1	0	0
Mountain									
Denver	1413	4	1	2	2	2	0	5	4
Phoenix	1211	1	1	0	0	0	0	3	0
Salt Lake City	783	1	1	2	0	7	0	3	3
Midwest									
Minneapolis	2011	3	1	2	0	2	1	11	2
Milwaukee	1585	1	1	0	0	0	1	1	0
Chicago	7658	8	8	5	2	7	1	22	12
Grand Rapids	564	3	0	0	0	0	1	3	0
Flint	519	1	1	0	0	0	2	1	0
Detroit	4669	5	2	3	0	1	1	9	3
Toledo	779	4	3	4	1	3	1	12	4
Cleveland	2902	5	4	1	0	1	1	11	1
Pittsburgh	2322	7	5	0	0	2	1	9	0
Columbus	1069	5	1	0	0	0	0	6	0
Indianapolis	1139	6	5	2	2	1	0	11	2
Dayton	836	3	2	1	0	0	2	5	1
Cincinnati	1626	2	2	1	1	1	1	3	1
Louisville	888	1	1	1	1	1	1	2	1
Kansas City	1290	4	6	2	1	2	1	15	7
St. Louis	2367	2	4	5	1	3	1	11	7
Memphis	867	2	0	0	0	1	1	2	0
San Antonio	982	5	0	2	2	4	0	5	3
Dallas	2527	9	2	2	1	2	0	9	2
Tulsa	586	6	7	10	7	5	2	14	27
Houston	2469	10	8	8	3	10	1	31	24
New Orleans	1094	0	6	5	1	6	1	6	7

Source: Appendix B

Table IV.2

Access to Water Transport in 59 Consumer Markets

	Number of Markets	Population in 1975 (000)	Percentage of Population
Markets with Major Port or Waterway	43	100,260	86.4
Markets within 50 miles of Major Port or Waterway	6	3,796	3.3
Markets with No Water Access	10	12,012	10.3
All Markets	59	116,068	100.0

examining rivalry of pipelines in serving refineries in a later section we will take the number of rivals here to be the number of refineries. A simple characterization of rivalry in consumer markets therefore focuses on: the number of product pipelines delivering; the number of local refineries; and whether or not water transport is available. Table IV.3 summarizes this rivalry. It shows that markets served by product pipelines typically have about 5 competing local entities, plus, in about 80 percent of the markets, potential or actual water competition.

One inference that seems reasonable to draw from Table IV.3 is that product pipelines contribute more to local rivalry than local refineries. The U.S. refining industry is judged to be a competitive industry[1] by any standard: concentration, profitability,

---

[1] See, for example, R.B. Mancke, "Competition in the Oil Industry," in E.J. Mitchell, ed., *Vertical Integration in the Oil Industry*, American Enterprise Institute, Washington, D.C. (1976); T.D. Duchesnau, *Competition in the U.S. Energy Industry: A Report to the Energy Policy Project of Ford Foundation* (Cambridge; Ballinger, 1975); and J. Shenefield and J. Sims, *Statement of Factual Position of the Department of Justice*, before the Office of Hearings and Appeals, U.S. Department of Energy: No. 2 Home Heating Oil Hearing (June 30, 1978), p. 12.

Table IV.3

Rivalry Among Refiners, Pipelines and Water Transport in 59 Consumer Markets

	Number of Markets	Average Number of Refiners	Average Number of Pipeline Companies Delivering Product	Percentage of Markets with Water Access	Average Total Rivals* Excluding Water Transport
Markets with Refiners	32	3.6	3.2	81.3	6.7
Markets with Product Pipelines Delivering	49	1.6	3.0	79.6	4.5
Markets with Refiners and Product Pipelines Delivering	28	2.9	3.6	78.6	6.3
Markets with No Water Access	10	1.7	3.7	0.0	5.4

*Total rivals is the sum of refiners plus product pipelines delivering, except in four markets where a refinery and product pipeline were owned by the same company and therefore counted as only one competing entity.

shifting market shares, etc. Outside refineries are viewed as competing with local refineries primarily by means of water and pipeline transport. If water transport is the dominant price-setting mode, then clearly the pipeline market is competitive. If pipelines themselves are the transportation bottleneck for outside refiners then it is the number of pipelines, not the number of outside refiners, that defines the extent of rivalry from outside. The judgment that the refining industry is competitive therefore seems to imply that the product pipeline industry is competitive in consumer markets.

We turn now from the averages to what we have called the "worst" cases, those markets served by a single pipeline, and examine carefully as to whether water shipment or local refineries provide a high degree of rivalry. Table IV.4 shows the extent of water shipments and local refiner rivalry in the 14 markets served by a single pipeline.

It is apparent that nine of the fourteen markets receive very large average shipments by water as compared to estimated local consumption: at least 43 percent for gasoline and 34 percent for distillate. This alone would suggest substantial and consistent competition and limited discretion in tariff-setting by pipelines. The explanation for receipts in excess of 100 percent is that some markets serve as transhipment areas for further movement by truck or pipeline. The significance of the last column is that tariffs to the market in question cannot be so artificially high that it is unattractive to collect product for

Table IV.4

Consumer Markets Served By A Single Product Pipeline: Water Shipments and Local Refiner Rivalry

	Receipts by Water as a % of Estimated Local Consumption**			
Market	**Gasoline**	**Distillate**	Number of Local Refineries	Number of Product Pipelines Collecting or Through
Albany	289%	294%	1	0
Boston	163	128	0	0
Baltimore	48	102	2	1
Norfolk	52	114	1	1
Orlando*	84	165	0	0
Seattle	50	88	4	1
Portland, Ore.	43	113	1	1
San Diego	0	34	0	0
Phoenix	0	0	0	1
Salt Lake City	0	0	7	1
Milwaukee	18	14	0	1
Flint	0	0	0	1
Louisville	157	130	1	1
Nashville	43	34	0	0

*There are no statistics for water shipments to the Orlando area. Shipments do go through Jacksonville down the St. John's River to just north of Orlando, and to Cape Canaveral, just east of Orlando. The figures given are the volume of shipments into the port and waterway serving Orlando divided by estimated consumption in the entire northeast quarter of Florida area, including Jacksonville, Orlando, etc.

**Average of 1974-1978 receipts divided by local consumption, the latter estimated by allocating state consumption to the SMSA on the basis of population.

Source: Waterborne Commerce of the United States, Department of the Army, Corps of Engineers (1974-1979); County and City Data Book, U.S. Department of Commerce, Bureau of the Census (1967, 1977); Energy Information Administration, U.S. Department of Energy.

transport to still other markets where product is presumptively priced competitively. This point, while not proof positive of competitive prices. is strongly suggestive. Even in cases where the same pipeline is merely going through to other markets the short haul-long haul clause limits pricing discretion in the short-haul market.

Milwaukee's water receipts over the period have not been a large percentage of estimated consumption, but they have been consistent, with gasoline shipments never being less than 15.7 percent and distillate shipments never less than 10 percent. These water shipments are not due to the single pipeline, the West Shore Pipe Line being full. Over the period in question the Des Plaines-Milwaukee segment operated at between 54 and 72 percent of capacity. Furthermore, the line continues on to Green Bay where it again competes with lake shipping. The size of the line -- 16" to Milwaukee, 10" to Green Bay -- does not suggest a major cost advantage over lake shipping. Since one of its two terminals in Milwaukee is precisely at the port this suggests even less tariff discretion.

Flint, Michigan, does not have a port. However, the Port of Saginaw is about 22 miles beyond Flint and is the terminus of the Buckeye Pipe Line segment that runs through Flint. In other words, Flint is a short haul on the long haul to Saginaw and thus constrained by the short haul-long haul clause. Saginaw does have a significant water receipts of product, averaging 20 percent of gasoline and 27 percent for distillate, with highs of 28 and 38 percent, respectively. Saginaw is also served by a local refinery. In addition, there is a Marathon refinery in Detroit, a Total refinery in Alma, about 75 miles northwest of Flint, and Amoco operates lake tankers into dock facilities in Bay City, about 30 miles north of Flint. Buckeye estimates its market share of consumption in the Flint area to be about 44.6 percent for gasoline and 34.5 percent for distillate in the 1978-1980 time period.[2]

Salt Lake City is served by 7 local refiners which in itself represents appreciable competition.

San Diego has had virtually no water receipts of gasoline since 1976 and severely declining distillate receipts. But as recently as 1975 water receipts of distillate were 83 percent of estimated consumption. If we go back in time we also find large receipts of gasoline by water. In 1966, for example, gasoline receipts by water were 25.1 percent of estimated local consumption. The decline in water movement is due to the fact that the state regulatory authority has not allowed a rate increase for the San Diego Pipe Line for the past eighteen years. As a result of general inflation, pipeline tariffs have become so low relative to costs of alternative modes that no one ships from Los Angeles to San Diego by any other mode, at least not by choice.[3] The line has been unable to accept all tenders for about 7 or 8 years and additional shipments have usually been made by truck since it is not economical to maintain barge terminals for occasional use. The San Diego Pipe Line may, therefore, be described as an "unnatural monopoly," a creature of state regulation without power to charge even competitive tariffs.

---

[2] Calculations by author from data supplied by Buckeye Pipe Line.

[3] This would be an example of prorationing caused by tariff constraint as suggested above, but due to state regulation, not the Elkins Act Consent Decree.

In Phoenix, the Southern Pacific pipeline, which delivers from both Los Angeles and El Paso, is the only products pipeline. There are no local refineries or pipelines. There are, therefore, no current rivals to the Southern Pacific pipeline in supplying refined product to Phoenix.

However, the potential for entry, if Southern Pacific's tariffs were to become excessive, is serious. Southern Pacific is a non-integrated company. It does not refine oil or ship on its own line. The companies that do ship on its line are refiners, who already have extensive experience at building and operating pipelines. Indeed, refiners, like those that ship on the Southern Pacific, have built and now operate the overwhelming portion of pipelines now in existence. They could easily build another products pipeline to Phoenix if it were in their interest to do so.

If a consortium of refiner-shippers did build a pipeline to Phoenix, it would be devastating for the Southern Pacific. For it would be certain that the owners of the new line would enter into throughput agreements to finance it. Thus, regardless of what Southern Pacific's tariffs were, the shipper-owners of the new line would ship on that line. Southern Pacific, therefore, could potentially lose most of the current demand for its pipelines with no hope of recovering it. The reality of this threat is supported by the following:

> "In 1964 a group of shippers (Conoco, Gulf and Humble) threatened to construct the Gila pipeline, a products pipeline parallel to SPPL's existing 8" line between El Paso and Tucson. In response to this threat, SPPL constructed a parallel 12" pipeline and utilizing the economies of scale provided by the larger pipeline was able to make a substantial reduction in tariff rates to the Arizona market."[4]

This threat and the pipeline expansion occurred at a time when demand exceeded the capacity of the 8 inch line. An expansion of capacity and reduction of tariffs is not the response of monopolist to increased demand. Southern Pacific was compelled to expand and reduce tariffs by the threat of a larger competing line that would have set lower tariffs.

Potential competition to the Southern Pacific also existed in the form of the conversion of the Four Corners crude line to products, and extension of the line from northern Arizona to Phoenix; or conversion of the El Paso Natural Gas pipeline to products, with a similar extension; or use of either line to ship crude to a new refinery in Phoenix or its environs.

The latter possibility is fast approaching reality. Provident Energy Co., Inc. of Phoenix has broken ground for a 50,000 b/d refinery at Mobile, 45 miles from Phoenix. The refinery will be supplied with Alaskan crude through the Four Corners pipeline and a 204 mile 16 inch extension to Mobile. A product pipeline will be built to connect the refinery to Phoenix. The refinery is expected to supply 37 percent of Arizona's gasoline consumption.[5]

---

[4] Excerpt from "Competitive Forces in Arizona and San Diego Markets," an attachment of letter to Hugh L. Scott, Texoma Pipe Line Company from B.K. Smith, President, Southern Pacific Pipe Lines, dated Jan. 29, 1982.

We turn now to the ten cities with no water access. They are, with the number of local competing entities (refiners plus product pipelines delivering):

Dallas	11
San Antonio	9
Indianapolis	8
Salt Lake City	7
Denver	6
Columbus	5
Atlanta	2
Charlotte	2
Greenville	2
Phoenix	1

Of these only Atlanta, Charlotte, Greenville and Phoenix do not have an appreciable number of rivals. We have already discussed Phoenix.

Atlanta, Charlotte and Greenville lie along one 200 mile section of the Colonial and Plantation pipelines.[6] Each pipeline collects product in the east Texas-Louisiana area. They then run parallel through the Atlanta-Charlotte region, with Plantation terminating in Washington, D.C. and Colonial terminating in Linden, New Jersey (a part of the New York metropolitan area). Aside from their obvious competition with one another there are two major constraints on their tariffs. First, the short haul-long haul clause of the Interstate Commerce Act requires rates to near terminals to be no more than rates to distant terminals on the same line. Since the distant terminals on both pipelines, and especially the Colonial, are in competitive markets, rates in the Atlanta-Charlotte region must be less than these competitive rates. Second, with no restrictions on entry and substantial increases in demand in the Colonial-Plantation service area, tariffs in excess of competitive levels would have attracted new pipelines.

---

[5] *Oil and Gas Journal*, Feb. 1, 1982, p.214

[6] A third pipeline, Dixie, carries LPG and runs parallel to Colonial and Plantation about 50 miles to the southeast of the Atlanta-Charlotte section. Because of significant overlapping ownership with Colonial we have, in the interests of being conservative, ignored it as both an existing rival, and, through expansion or conversion into products other than LPG, as a potential rival.

Focusing on Colonial, by far the larger of the two lines, we note that its distant terminals include Norfolk, Baltimore, Philadelphia and New York, while various stublines radiate out from the Atlanta-Charlotte region to include major cities such as Nashville. We have already seen how Norfolk, Baltimore and Nashville receive large shipments of refined product by water (see Table IV.4). Indeed, the east coast cities, offering access by ocean-going tankers, are wholly integrated into the world refined products market. With President Reagan's removal of oil price controls and elimination of the entitlements subsidies to domestic refiners, U.S. east coast prices must be in line with world prices (up to tanker costs and a small import duty). The world refined product market is atomistic in structure[7] with the United States a price taker in its coastal markets.

Even before U.S. coastal cities were opened up to international refined products competition the evidence is that Colonial was essentially a price taker. The available data indicating Colonial's quantitative role in the east coast markets is that it had the capacity of delivering 960,000 barrels per day beyond Greensboro, N.C. in the 1975 to 1979 period. By comparison, New York and Philadelphia alone had refining capacity plus actual water-borne product receipts approximately three times this figure. Furthermore, evidence suggests that Colonial's tariffs were such as to deliver Texas and Louisiana product at the New York spot cargo prices quoted by Platt's Oil Pricegram.[8] We conclude that Colonial's rates are constrained by competition at its distant terminals, and thus, by virtue of the long haul-short haul clause, are constrained by competition (beyond that of Plantation pipeline) in the Atlanta-Charlotte region.

Because demand growth has been greater than expected several expansions have occurred and a total of 5 lines, or pipes, currently run through the Atlanta-Charlotte area. Thus, the opportunity for entry by new pipeline companies has been present for several decades. Indeed, Colonial's entry was itself in response to Plantation's decision not to expand in the early 1960s. No preemptive or exclusionary tactics appear in the history of Plantation and Colonial expansion as each pipeline has laid new lines only when existing throughputs approached capacity. Ironically, Colonial has been noted by the Department of Justice for underexpansion when some oligopoly theories would predict overexpansion to prevent entry.[9]

---

[7] See E. Mitchell, "Protection for Petroleum Refiners?", *Regulation* (July-August 1981), p. 41.

[8] Exxon Company, U.S.A., "Comments on John H. Shenefield's Pipeline Divestiture Testimony," preliminary draft, January 5, 1979, cited in M.E. Canes and D.A. Norman, "Pipelines and Public Policy," in E. Mitchell, op. cit., p. 155; and G. Wolbert, op. cit., pp. 520-523, for graphic comparisons in the year 1978.

B. Producing Markets

The issue in crude producing areas is whether there are enough alternative ways for a producer to dispose of his crude to prevent monopsony power from being exercised. Table IV.5 summarizes the characteristics of 27 producing areas accounting for more than 98 percent of U.S. crude oil production in the lower 48 states.

The most striking characteristics of these markets is that local refinery capacity is large relative to crude production in 20 of the 27 areas, and indeed, exceeds crude production in 14 of the 27 producing centers. This means that there is substantial competition for crude in the vast majority of areas without considering the possibility of moving crude out of the area by pipeline.

---

[9] See the discussion on the "undersizing" thesis in Mitchell, op. cit.

Table IV.5

Characteristics of Crude Producing Centers

Producing Centers	Number of Lines	Crude Pipeline Companies		Water 0-None 1-Port 2-Port within 50 mi.	Refineries	1979 Refinery capacity thousands of barrels per day	1979 Crude oil Production thousands of barrels per day	Refinery capacity as a Percentage of production
		Delivering	Collecting					
California								
East Central (Bakersfield)	12	2	5	0	14	231	556	41.5
Central Coast (Santa Barbara, Ventura, Newhall	7	2	5	1	3	39	166	23.5
Southern	8	4	1	1	18	1328	242	548.8
Montana	12	4	5	0	6	162	82	197.6
North Dakota	6	2	2	0	3	63	84.7	74.4
Wyoming*	13	5	4	0	13	202	361	60.0
West	10	2	4	0	5	64	--	--
East	11	5	5	0	8	138	--	--
Colorado**	12	3	6	0	0	0	88	0.0
Utah	5	3	3	0	8	171	76	225.0
Florida								
South	1	0	1	1	0	0	129	0.0
West	3	1	1	2	0	0		0.0
Alabama	7	2	3	1	6	135	52	260.0
Mississippi	9	2	6	1	6	360	102	352.9
Gulf Coast	1	1	0	1	1	280	--	--
South Central	8	1	6	2	5	80	--	--
Arkansas	5	2	2	0	4	65	52	125.0

Table IV.5 (Continued)

Producing Centers	Number of Lines	Crude Pipeline Companies		Water 0-None 1-Port 2-Port within 50 mi.	Refineries	1979 Refinery capacity thousands of barrels per day	1979 Crude oil Production thousands of barrels per day	Refinery capacity as a Percentage of production
		Delivering	Collecting					
Louisiana								
North	7	2	6	2	5	73	87.5	83.4
Gulf Coast	7	3	3	1	9	2167	1254	172.8
Texas								
East Texas	18	4	8	0	6	99	344	28.8
Gulf Coast	24	8	3	1	19	3495	353.6	988.4
South Texas	16	1	9	1	17	694	281.6	246.4
North Texas	15	5	7	0	1	3	90.8	3.3
Panhandle	7	3	2	0	3	174	51.7	336.6
West Texas and S.E. New Mexico	16	2	10	0	8	302	1868	16.2
Oklahoma	33	9	10	1	12	570	393.5	144.9
Kansas**	30	15	6	2	7	315	156	201.9
Southern Illinois	11	3	6	2	2	289	60	481.7
Michigan	3	2	2	1	5	145	95.5	151.8

*No production data are available for East and West Wyoming separately, or Mississippi Gulf Coast and South Central separately.

**Some refineries in Kansas and all refineries in Colorado were not included because they are not in the producing area.

In only three cases is there but one pipeline collecting crude for movement outside the producing area. These are Southern California, South Florida and West Florida.

Southern California, although a significant producer of crude, is preponderantly an importer of crude, with large water receipts, 18 local refineries with capacity equal to 5 times local production, and 4 crude pipelines delivering into the area. The one pipeline collecting, Four Corners, is a very small factor in a huge crude market.

In West Florida Exxon Pipe Line Company has the only pipeline taking crude out of the Jay field. Exxon holds a 36.0 percent interest in the field, Louisiana Land and Exploration a 33.7 percent interest and several others the remaining 30.3 percent. At the pipeline planning stage Exxon was expected to have a 40 percent interest in the field and so took the lead. Only Louisiana Land expressed interest in participation, but then later dropped out. Thus, the producers had the opportunity to share in the ownership of the pipeline.

The field is unitized, that is, operated as a single entity, with majority control in the hands of companies other than Exxon. Thus, the market for pipeline services consists of one buyer and one seller. The nonintegrated producers could ship by truck in the short run and build another line in the long run.

The initial tariff on the line set in 1973 was 12 cents per barrel to Mobile, the only delivery terminal. This was about one-third of truck transport to Mobile or to Milton, Florida, the nearest barge terminal. The March 1, 1982 tariff was 12.99 cents, indicating a substantial decline when adjusted for inflation.

In South Florida, Exxon is the only shipper on the Sunniland Pipeline, an independent company owned by Madisonville Terminals Corp. Tariffs are set by contract and are negotiated regularly. As in West Florida, there is one buyer and one seller in the pipeline services market and unreasonable demands by the seller could readily lead to a new pipeline.

Focusing on producing centers with no water access and two pipelines we have North Dakota, Arkansas, and the Texas Panhandle. North Dakota has 3 local refineries with capacity equal to 74.4 percent of crude production, plus the two collecting pipelines for a total of 5 competing entities. That crude prices are not held down by monopsony power is also evidenced by the two crude lines that deliver into the area.

Arkansas has 4 local refineries with capacity equal to 125 percent of local production, plus the two pipelines, for a total of 6 competing entities. Two crude pipelines deliver into the area.

The Texas Panhandle has 8 local refineries with capacity more than three times local production, plus the two competing pipelines. However, Phillips owns one of the pipelines and one of the refineries, and so there are just nine competing entities. Three crude pipelines deliver into the area.

C. Refining Centers

Two issues arise in the case of refining centers: Does the refiner have alternative ways of obtaining crude oil to avoid being exploited by a single crude pipeline? Does the refiner have alternative ways of disposing of his product to avoid being exploited by a product pipeline?

Table IV.6 summarizes the characteristics of 48 refining centers accounting for 92 percent of domestic refining capacity. We find that the following 11 refining centers are served by a single crude pipeline: Buffalo; Cincinnati; Louisville; Sweeny, Texas; Baton Rouge; Catlettsburg, Kentucky; Canton, Ohio; Mandan, North Dakota; Northwest Washington; El Paso; and Pascagoula, Mississippi.

In 6 of the 11 cases the single crude pipeline delivering is perfectly vertically integrated with a single refiner. In Sweeny, Texas, Phillips Petroleum owns the only pipeline delivering crude and the only refinery. In Catlettsburg, Canton and Louisville, Ashland owns the only pipeline delivering crude and the only refinery. In Mandan, Amoco is likewise the only crude pipeline company and refiner. And in Pascagoula, Chevron is in the same position. Clearly, there is no possiblity of the pipeline company exploiting a shipper in these cases since the pipeline, while legally a common carrier, would never find anyone other than its parent company shipping on its line.

Table IV.6

Characteristics of Refining Centers

Refining Center	Refinery		Product Pipeline Companies		Crude Pipeline Companies		Water Access 0-None 1-Port 2-Port within 50 mi.	Product Lines	Crude Lines
	Number	Capacity	Delivering	Collecting	Delivering	Collecting			
WITHIN MAJOR CONSUMING MARKETS									
EAST									
Buffalo	2	110	2	1	1	1	1	2	3
New York (Linden, N.J.)	3	481	3	2	0	0	1	7	0
Philadelphia	7	1105	3	6	0	0	1	11	0
Norfolk-Yorktown, Va.	1	55	1	0	0	0	1	1	0
MID-WEST									
Minneapolis	2	201	3	1	2	0	1	11	2
Chicago	7	1034	8	8	5	2	1	22	12
Detroit	1	67	5	2	3	0	1	9	3
Toledo	3	307	4	3	4	1	1	12	4
Indianapolis	1	45	7	4	2	2	0	11	2
Cincinnati	1	44	2	2	1	1	1	3	1
Louisville	1	26	1	1	1	1	1	2	1
Memphis	1	44	2	0	0	0	1	2	0
St. Louis	3	470	2	4	5	1	1	11	7
Kansas City	2	196	4	6	2	1	1	15	7
Tulsa-Cushing	5	191	6	7	10	7	2	14	27
GULF COAST									
New Orleans	8	1097	0	6	5	1	1	6	7
Houston	10	2166	10	8	8	3	1	31	24
WEST									
Seattle	4	37	1	1	0	0	1	3	0
San Francisco	6	916	0	2	3	0	1	4	3
Los Angeles	20	1350	0	2	2	1	1	2	5
Honolulu	2	110	0	0	0	0	1	0	0
MOUNTAIN									
Salt Lake	7	160	1	1	2	0	0	3	3

Table IV.6 (Continued)

Refining Center	Refinery Number	Refinery Capacity	Product Pipeline Companies Delivering	Product Pipeline Companies Collecting	Crude Pipeline Companies Delivering	Crude Pipeline Companies Collecting	Water Access 0-None 1-Port 2-Port within 50 mi.	Product Lines	Crude Lines
OUTSIDE MAJOR CONSUMING MARKET									
CULF COAST									
Corpus Christi	10	603	0	4	5	1	1	7	14
Sweeny, Tex.	1	100	0	2	1	1	1	4	6
Beaumont & Port Arthur	8	1407	4	9	6	4	1	18	12
Baton Rouge	6	607	2	3	1	0	1	8	5
Lake Charles	6	413	2	4	3	2	1	5	13
Pascagoula, Miss.	1	280	0	1	1	0	1	1	1
Mobile, Alabama	3	91	0	0	2	1	1	0	4
MID-WEST									
Southern Okla.	4	180	3	5	5	9	0	8	23
Ponca City, Okla.	2	192	3	6	3	3	0	14	7
El Dorado, Ks.	6	288	7	8	9	5	0	19	16
Southern Ill.	2	289	1	3	3	2	2	7	9
Catlettsburg, Ky.	1	140	0	0	1	0	1	0	3
Lima, Ohio	2	198	6	2	4	1	0	17	6
Canton, Ohio	1	66	1	1	1	0	2	6	1
Duluth, Minn.	2	71	1	1	1	0	2	1	3
Mandan, N.D.	1	53	0	1	1	0	0	1	1
WEST									
N.W. Washington	4	357	0	1	1	0	1	1	1
Bakersfield, Ca.	11	198	0	1	2	5	0	1	12
MOUNTAIN									
Billings, Mont.	3	145	1	3	2	1	0	4	3
Casper, Wyo.	3	94	1	2	3	3	0	3	6
Sinclair, Wyo.	1	50	1	2	2	1	0	3	3
SOUTH & SOUTHWEST									
W. Tex. & S.E. N. Mex.	5	172	0	8	2	10	0	14	16
El Paso, Tex.	2	93	2	2	1	0	0	6	1
Borger, Tex.	3	174	1	4	3	2	0	8	7
El Dorado, Ark.	4	65	1	1	2	2	0	6	5
Shreveport, La.	5	73	1	1	3	6	0	3	7

Source: Appendix B

In El Paso, vertical integration is strong but not absolutely perfect. A single Chevron pipeline delivers crude to a Chevron refinery of 76 mb/d capacity, but there is also a small Texaco refinery of 17 mb/d capacity.

In Baton Rouge an Exxon pipeline delivers crude to a huge 540 mb/d Exxon refinery. There are two other small refineries in the area with capacity totalling 47 mb/d, but receipts of crude by water in 1978 were 230 mb/d, or 38 percent of total refining capacity in the area and almost 5 times the capacity of the non-integrated refiners.[10]

In Cincinnati, the Gulf refinery is supplied by the Mid-Valley pipeline, of which Gulf owns 9 percent. Gulf's share of the throughput is unknown, but if its refinery operated at 80 percent of capacity, Gulf would have taken about 12 1/2 percent of the pipeline's 1979 throughput in the 687 mile segment from Mayersville, Mississippi to Lima, Ohio. Allowing for the fact the Gulf terminal is a shorter distance than those of the other two owners, the Gulf ownership of Mid-Valley is about in line with its probable barrel-miles of shipments. In any event, the Mid-Valley, collecting in Louisiana and delivering in Cincinnati, would be in direct potential competition with barges using the Mississippi and Ohio rivers.

In Northwest Washington, the Trans-Mountain pipeline's throughput represented only 4 percent of local refinery capacity, with water receipts amounting to 91 percent.

---

[10] In the refinery center cases that follow, all refinery capacity figures are as of Jan. 1, 1979; all water and pipeline shipments are for 1978; all estimated local consumption is for 1978.

In Buffalo, the Interprovincial-Lakehead pipeline system supplies essentially all of the two local refineries' crude inputs. Formerly, these refineries were supplied by lake tanker from Toledo and by the Buckeye Pipe Line from the midwest. However, the tariffs charged and services offered by Interprovincial-Lakehead have made it impossible for tankers or Buckeye to compete, and the Buckeye line has been shut down. The Interprovincial portion of the system is regulated as a public utility by the Canadian National Energy Board. The Lakehead segments that deliver to Buffalo are very short, moving only from the Canadian border to the Buffalo refineries.

There are 13 refining centers where a single pipeline collects product: Pascagoula, Mississippi; Canton, Ohio; Duluth, Minnesota; Mandan, North Dakota; Northwest Washington; Bakersfield, California; El Dorado, Arkansas; Shreveport, Louisiana; Buffalo; Minneapolis; Louisville; Seattle; and Salt Lake City.

In 3 cases, perfect vertical integration occurs. In Mandan, Amoco owns the only refinery and only pipeline collecting product. In Canton and Louisville, Ashland owns the only refinery and the only pipeline collecting product.

In 2 more cases, a combination of vertical integration and water shipments eliminates any potential problems of exploitation. In Pascagoula, the only refinery is owned by Standard Oil of California (Chevron). Throughput on the segment connecting the refinery to the main line of the Plantation pipeline was 28.9 percent of refinery capacity. Standard Oil of California owns 27.1 percent of Plantation pipeline, and an amount of product equal to 62.9 percent of Chevron's refining capacity was shipped out by water.

In Northwest Washington, there are 4 refiners: Mobil (75 mb/d capacity); Shell (94 mb/d); Texaco (78 mb/d); and Arco (110 mb/d). The first three companies wholly own the Olympic pipeline, the only pipeline collecting product. Their percentage shares in their combined refining capacity and in the pipeline are, respectively, as follows: Mobil 39.4 vs. 29.5; Shell 38.0 vs. 43.5; Texaco 31.5 vs. 27.0. Thus, among the three companies owning the pipeline, refining and pipeline ownership shares are similar. Water shipments of product out of the area were 23.6 percent of total refining capacity (including Arco). Arco's share of total refining capacity is 30.8 percent.

In Seattle, local consumption is more than 3 times local refinery capacity, and water shipments are about two-thirds of refinery capacity.

In Bakersfield, the single product pipeline moved product out of the area equal to 10.1 percent of local refining capacity.

In Salt Lake City shipments out by pipeline were 35 percent of the sum of local refining capacity plus product receipts into Salt Lake City by pipeline.

In El Dorado, the single product pipeline collected an amount equal to 36.9 percent of local refining capacity.

In Minneapolis, Williams pipeline shipments out of the area were only 16.6 percent of the sum of local refining capacity plus Williams pipeline receipts into the area.[11] (No data were available on two other product pipelines shipping into the area.)

In Duluth, the Williams Pipeline ships both ways, to and from Minneapolis, on a seasonal basis. If we take one-half the throughput as going each way (as we did in the Minneapolis calculations), the product collected in Duluth is then 12.0 percent of local refining capacity.

D. Conclusion

We have considered 182 market niches. Of these, 47 were deemed worthy of examination because they displayed superficial monopoly or duopoly characteristics. We found overwhelmingly that these pipelines faced substantial competition and most commonly represented only a small or moderate part of their market. In many cases the only conceivable shipper on the line was the owner of the line. In just a few cases was it necessary to resort to a discussion of potential competition. In these cases potential competition would seem to be a genuine constraint on tariffs.

---

[11] I am informed that there is actually a second product pipeline collecting in Minneapolis, but it is a private pipeline owned by Koch (one of the two refiners in Minneapolis) and thus does not appear on any of the standard maps. On the delivery side the Koch line competes directly with the Williams line in western Wisconsin.

Considering the large number of markets we have examined, and that these were ostensibly the "worst" cases, our findings suggest that the opportunity for oil pipelines to exercise monopoly power must be rare.

Appendix A

Table A.1

TRUNK LINE REVENUE PER THOUSAND BARREL-MILES

Year	Average	Year	Average
1936	0.650	1955	$ 0.579
1937	0.661	1956	0.613
1938	0.662	1957	0.598
1939	0.705	1958	0.615
1940	0.690	1959	0.603
1941	0.643	1960	0.622
1942	0.546	1961	0.620
1943	0.548	1962	0.643
1944	0.544	1963	0.681
1945	0.560	1964	0.636
1946	0.472	1965	0.595
1947	0.496	1966	0.605
1948	0.461	1967	0.605
1949	0.491	1968	0.577
1950	0.480	1969	0.614
1951	0.487	1970	0.585
1952	0.497	1971	0.634
1953	0.512	1972	0.649
1954	0.521	1973	0.646
		1974	0.680
		1975	0.768
		1976	0.864
		1977	0.934

Source: Williams Co. data bank.

Appendix B

Basis For Pipeline Market Data in Tables IV.1, IV.5, and IV.6

1) Identification of pipelines serving each market determined from four sets of pipeline maps:
   a) American Petroleum Institute, Crude Oil Pipe Line Map of the United States and Southern Canada, Ninth edition (January 1, 1979); ibid., Products Pipe Line Map of the United States and Southern Canada, Ninth Edition (January 1, 1979);
   b) Oil and Gas Journal, Crude Oil Pipelines in the United States and Canada, (January 1, 1978); ibid., Products Pipelines in the United States and Canada, (July 1, 1979);
   c) National Petroleum Council, Petroleum Storage and Transportation Capacities, Volume III, Petroleum Pipeline, (December, 1979);
   d) Pace Company map of refined products only.

2) a) Crude oil pipelines include crude and condensate lines.
   b) Product pipelines include LPG, but not liquid fertilizer lines.

3) Pipelines confined to the market area (SMSA, producing or refining center) are not included.

4) When a pipeline delivers to an area and then continues on to another area, it is regarded as delivering and collecting in the first area. But such a pipeline is counted as a single line.

Appendix B page 2

If a pipeline company has a line delivering to an area, and another distinct line collecting in the same area, a delivering and collecting pipeline are each counted, and two lines are counted for the area.

5) Joint ventures are not counted as a separate pipeline company if a majority of the owners of the joint venture line have their own pipelines in the area. But the joint venture line is counted in the number of lines.

6) Refineries, their locations and capacities, were determined from the Oil and Gas Journal, Products Pipelines..., op. cit. (1979).

7) No private pipelines were counted unless shown on the maps used.

Appendix C

Classification of Pipeline Companies with Respect to Elkins Act Consent Decree

I. Companies under the Decree* (35)

Amoco, Arapahoe, Butte, Chicap, Cities Service, Colonial, Continental, Cook Inlet, Dixie, Explorer, Four Corners, Gulf Refining, Lakehead, Laurel, Mid-Valley, Mobil, Olympic, Phillips, Plantation, Platte, Pure, Seaway, Shell, Southcap, Sun, Tecumseh, Texaco-Cities Service, Texas-New Mexico, Texas, Texoma, West Shore, West Texas Gulf, Wolverine, Wyco, Yellowstone.

II. Companies Not Under the Decree (17)

Ashland, Belle Fourche, Buckeye, Chevron, Eureka, Gulf Central, Hess, Hydrocarbon Transport, Kaneb, Marathon, Minnesota, Owensboro-Ashland, Portal, Portland, Santa Fe, Southern Pacific, Williams.

---

*This classification includes nine companies who file consent decree returns with the Department of Justice, but who believe they are not subject to the decree. An analysis of profitability that separates out this group of companies does not change any of the conclusions drawn in Section III.

Appendix D

Pipeline Companies Submitting Actual Consent Decree Rates of Return Used in Fig. III.3

Amoco, Arapahoe, Badger, Chicap, Cities Service, Colonial, Continental, Cook Inlet, Dixie, Explorer, Exxon, Gulf, Kaw Lake Charles, Laurel, Mobil, Olympic, Phillips, Pioneer, Plantation, Powder River, Pure, Seaway, Shell, Southcap, Sun, Texaco-Cities Service, Texas, Texas-New Mexico, Texoma, West Shore, West Texas Gulf, Wolverine, Wyco, Yellowstone.

Senator **Nickles**. Thank you very much. We appreciate your comments and also your statement, Mr. Mitchell.

Mr. Barber, please proceed.

STATEMENT OF RICHARD J. BARBER, PRESIDENT, RICHARD J. BARBER ASSOCIATES, INC.

Mr. **Barber**. Mr. Chairman, we, too, have conducted a study ourselves focused upon TAPS, as you are aware. Copies of our study have been previously made available to you and to the subcommittee. I will not deal with it at length but I would ask if you wish to include a copy in the hearing record so that it may be referred to by anyone concerned.

Let me make three points and I will try to summarize and condense my prepared statement even to a shorter degree than it already is.

First, references have been made to the fact that TAPS is some sort of a unified monopoly carrier. These views stem from the notion that TAPS in some way is a single economic entity. It is a single physical entity, of course, but it involves the operations of eight separate and independent carriers. These carriers establish their own rates. Those rates differ and have differed significantly from one another, and these carriers compete among themselves for shipping volume.

Some of them do have production through affiliates on the Alaska North Slope, but others do not, and as a result, these carriers typically compete with one another through their rates in order to attract volume to themselves and away from the others. In the long run, this will become increasingly significant as production on the Alaska North Slope, particularly in the Prudhoe Bay unit which is the main source of oil for the TAPS line, itself begins to dwindle.

Second, the oil that is transported from the North Slope by the eight TAPS carriers competes in United States end use markets with an abundance of oil from other sources, both from within the United States and from abroad. Much of this oil moves to the west coast where it competes with oil from California, of course, and from foreign countries. Much of it also moves to the gulf coast where it competes with oil from Texas, Louisiana, and from various foreign countries, including to a growing degree from Mexico.

The result is that the TAPS carriers no more than for that matter the TAPS oil producers are not in a position to raise the ultimate delivered price to American consumers of the oil that originates on the North Slope. They have to meet the competition at the delivered price, that is, the refinery gate, from alternative sources of oil.

Third, and I think these are particularly important considerations but I will try to summarize them briefly, these deal with the long-run posture of TAPS which is now carrying something in excess of 1.5 million barrels of oil a day. That is important in the sense that for the carriers involved with financial commitments that extend well into the next century, the committments that are massive, multibillion dollar carriers, and they need not just now but in the nineties and in the 21st century, oil to move to the line from which they can then derive transportation revenues to pay for the cost that they have incurred. Despite certain suggestions on the part of other witnesses, the fact is that the main source of this oil is from the Prudhoe Bay unit which is expected to begin to decline within the next 3 or 4 years according to a study by the General Accounting Office.

It is now approximately 1.5 million barrels per day, but the Prudhoe Bay production by the year 2000 is expected to be as low as 300,000 barrels per day and fall thereafter to an estimated 85,000 barrels per day by the year 2005. Even if the production from the Arctic unit buildup is as anticipated, it is projected to add only about 250,000 barrels per day for movement by the TAPS carriers. In effect, therefore, what we are looking at instead within a very short period of time, the volume of oil will begin to decline very dramatically. This imperils the position of carriers since they need the oil to sustain their revenue requirements.

It is in that respect that I find the position of Mr. DeMuth, Mr. Coburn, certain others, to fail to pursue the logic of their own point. They say that rates charged by the TAPS carriers can affect the exploration for new oil, but the key point is that it is this, not regulation, which causes those carriers using the TAPS line to charge reasonable competitive rates. Now that is in the short run. Why? It is in their interest to do so because with leadtimes for production, for exploration on the North Slope in the range of 7 to 14 years, it is imperative that they price their services in a way such as to encourage exploration on the North Slope.

If they do not do so, if they charged supposedly monopolistic rates, they would discourage exploration and enhance the risk of not having a sufficient volume of oil to transport beginning in the late eighties and thereafter when they still face very substantial financial burdens to which they are already committed. It is, to the contrary, in their economic interest as carriers to charge reasonable, competitive rates in order to attract exploration on the part of any parties concerned so that there may be the prospect of adequate supply of oil to be moving through the TAPS lines after the production begins to decline, and it is, as I have indicated, expected to begin to decline dramatically before the end of this decade. With leadtimes as they are, rates have to be set immediately at levels that will attract exploration to yield the greater production of oil thereafter which is so critical to the financial posture of the TAPS carrier.

Taking all of these considerations into account, I will come to the conclusion that the TAPS posture, that the TAPS situation is one in which regulation is neither necessary nor I believe desirable in order in the public interest to encourage adequate investment, to encourage pipeline expansion where that is appropriate, to take account of the potential competition from other sources of oil and from other modes of transportation. I think continued regulation is not desirable in the larger public interest because it does risk impairing pipeline expansion, pipeline investment which is essential to the development and efficient use of this country's indigenous oil reserves.

That concludes my remarks.

[The prepared statement and report submitted by Mr. Barber follow:]

Richard J. Barber Associates, Inc.

STATEMENT OF

RICHARD J. BARBER

BEFORE THE SUBCOMMITTEE ON ENERGY REGULATION OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

May 21, 1982

Mr. Chairman and Members of the Subcommittee:

My name is Richard J. Barber. I am President of Richard J. Barber Associates, Inc., a Washington-based firm that provides economic consultation to business and government.

The specific subject of my testimony is the role and extent of competition and market factors as they relate to transportation of oil by the eight carriers who operate via the Trans-Alaska Pipeline System (TAPS). At the request of these carriers we have studied the pertinent competitive situation and have prepared a report, copies of which have previously been made available to the Subcommittee. I would ask that a copy of our 35-page report be included in the hearing record to accompany my testimony.

In summarizing our findings, let me initially say that I agree with the views of other witnesses who appear today and who have concluded that U. S. oil pipelines are subject to widespread competition and that their continued economic regulation is neither necessary nor desirable. Our study shows that what is true generally of competition in the U. S. as it relates to the oil pipelines is also true of the Trans-Alaska Pipeline System (TAPS). Completed in 1977, at a cost of $9 billion, for the purpose of transporting oil from the Alaska North Slope (ANS) to a terminal at Valdez, TAPS is a unified physical entity but involves the operations of eight separate and independent carriers. These carriers establish their own rates (which differ significantly from one another) and transport oil for the various ANS shippers. Some of these shippers are affiliated with the pipeline owners, but others are not. Since the carriers' rates differ, shippers routinely seek out those with the lowest available charges, a fact that means that the carriers transport substantial volumes of oil of unaffiliated users. The short-run supply and demand dynamics are characteristic of those to be found in a workably competitive environment.

Since the ANS crude oil transported by the eight TAPS carriers competes in U. S. end-use markets with an abundance of oil from other domestic and foreign sources (moved by diverse pipelines and transportation modes), its delivered price -- inclusive of the cost of transportation via TAPS -- is constrained by market forces. This is true of Alaska North Slope oil delivered to West Coast refineries (where it competes with oil from California and from foreign countries) and to Gulf Coast refineries (where it competes with oil from Texas, Louisiana, and from various foreign countries, including Mexico). The delivered price of oil from these alternatives sets the delivered price to which ANS oil, moved over TAPS, must conform. Thus rates charged by the eight TAPS carriers have no effect on the price of oil paid by U. S. consumers.

Long-run considerations also shape the competitive setting. The TAPS pipeline, built to serve the Prudhoe Bay Unit, has an anticipated service life that will extend well into the next century. While the investors plan to amortize its cost over a comparable period, they can do so only if they have an adequate supply of oil to transport. However, output from the Prudhoe Bay Unit itself is expected to begin to decline markedly in the late 1980's, reaching an estimated volume of only 300,000 barrels per day by the year 2000. This figure is equal to only a fifth of the current volume transported by the TAPS carriers. It is thus in the interest of the TAPS carriers, aware of the many years required to develop new oil reserves, to maintain rates in the short-run that will encourage exploration that offers the potential of generating traffic in the 1990's and beyond. These vital long-term considerations also help keep the rates charged by the TAPS carriers at reasonable levels.

The competitive and related factors which I have summarized (and which are dealt with at greater length in the accompanying report) obviate the need for continuing regulation of the TAPS carriers. With decontrol the TAPS carriers will remain constrained in the rates they charge by competition from other oil in destination markets, by their long-term need to encourage the development of oil they can transport, and by potential competition from Alaskan on-shore or off-shore oil that could be shipped by other (new) pipelines or marine transportation. (The U. S. Geological Survey recently concluded that tanker transport in the Arctic has been "found to be technically and economically attractive.") In this economic context it is the marketplace, not regulation, that protects consumers and producers from unreasonable pricing or related practices of the TAPS carriers.

This leads to the conclusion that continued regulation of the TAPS carriers is economically unwarranted and without public interest justification. More than that, however, decontrol of oil pipeline rates would remove what has proven to be an administratively burdensome and costly form of regulation that has created unnecessary risks for future pipeline investments. By eliminating oil pipeline rate regulation, and relying instead on competitive market forces, these risks would be removed and productive pipeline investment, vitally important to the development and efficient use of the nation's oil reserves, would be encouraged.

This concludes my prepared statement. I will be pleased to respond to your questions.

THE TRANSPORTATION OF ALASKAN NORTH SLOPE OIL BY PIPELINE: AN ASSESSMENT OF THE COMPETITIVE ISSUES RELEVANT TO RATE DEREGULATION

Prepared by

Richard J. Barber Associates, Inc.

1828 L Street, N. W.

Washington, D. C. 20036

May 1982

TABLE OF CONTENTS

Page No.

SUMMARY.. 1

I OIL PIPELINE DEREGULATION: AN ECONOMIC PERSPECTIVE.. 1

Basic Economic Considerations Pertinent to Oil Pipeline Competition and Regulation....... 1

Basic Competitive Forces Govern the Eight TAPS Carriers.......................... 4

There Is No Need for Oil Pipeline Regulation or Public Interest Justification for its Perpetuation.......................... 7

II ALASKA NORTH SLOPE OIL TRANSPORTED BY THE EIGHT TAPS CARRIERS COMPETES WITH OTHER SOURCES OF CRUDE.. 9

U. S. Markets in Which ANS Oil is Distributed.. 9

In the Lower 48 Markets Where ANS Crude is Distributed It Faces Intense Competition From Other Sources of Supply......... 11

West Coast.................................. 11

Gulf of Mexico............................. 12

Price Competition.......................... 13

Recent Changes in Worldwide Oil Demand and Supply Have Intensified the Competition Confronting ANS Crude................ 14

III COMPETITION IN THE TRANSPORTATION OF ALASKA NORTH SLOPE OIL.. 17

TAPS -- Its Physical and Functional Attributes... 17

Eight Separate Carriers Operate Via TAPS with Varying Affiliated ANS Oil Production.. 19

The Competitive Role of Independent Shippers of ANS Oil Who Have No Ownership Interest in the TAPS Line........................ 22

TABLE OF CONTENTS
(Continued)

Page No.

Since Prudhoe Bay Production will Decline Well Before the Carriers Have Amortized their Investments, Competition is Intensified.. 24

Potential Transport Competition for ANS Oil...... 26

The Competitive Situation in Summary............. 28

IV CONTINUED OIL PIPELINE RATE REGULATION, IN ALASKA AS WELL AS THE LOWER 48 STATES, IS NEITHER NECESSARY NOR DESIRABLE....................... 29

Rate Regulation of Oil Pipelines is Not Necessary.. 29

Continuation of Regulation Ultimately Might Benefit Only the State of Alaska................. 30

Regulation has Proven to be Burdensome, Uncertain of Outcome, and Counter-Productive..... 32

CONCLUSION 35

LIST OF FIGURES

Figure Number		Facing Page
1	Shares of Refinery Receipts of Crude Oil, By Source, PAD V (West Coast), December 1981.....	11
2	Shares of Refinery Receipts of Crude Oil, By Source, PAD III (Gulf), December 1981.........	13
3	Map of the TAPS Route...........................	17
4	Eight Carriers Operate Via the Taps Pipeline....................................	19
5	The Eight TAPS Carriers Posted Separate Tariffs for their Transportation of ANS Oil When they Commenced Operations..................	20
6	The Eight Carriers' Shares of TAPS Capacity Differ from their Affiliates' and other Shippers' Percentages of Prudhoe Bay Unit Oil Production................................	21
7	The State of Alaska's Proposed Five Year Leasing Program Anticipates Exploration in Geographically Disparate Regions..............	22
8	Many of the Companies Exploring for Oil on the Alaska North Slope have no Ownership Interest in the TAPS Pipeline...................	23
9	Potential Arctic Oil Transportation Routes.......	27
10	Potential New Systems for the Transportation of Crude Oil from Alaska and Tributary Seas......	34

PREFACE

This report, prepared at the request of the carriers who operate over the Trans-Alaska Pipeline System (TAPS), examines the competitive setting relevant to the transportation of Alaskan North Slope oil. It is intended to provide an economic assessment for use in conjunction with Congressional consideration of measures designed to exempt oil pipelines from rate regulation.

The report has been prepared by Richard J. Barber Associates, Inc., a Washington-based firm that undertakes economic analyses for business and government in matters involving transportation, energy, taxation, antitrust, and other issues pertinent to the regulation of economic activity.

SUMMARY

Because the economies of oil pipelines often require the construction of facilities with large capacity, the number linking a particular area of production with a given destination may be small. In the early days of development of the oil industry this was thought to imply that carriers operating by pipeline might have the ability to price or otherwise act in a monopolistic fashion. This led to the imposition of Federal regulation in 1906, which has persisted to date and is now administered by the Federal Energy Regulatory Commission.

Economic assessment of the facts pertinent to oil pipeline transportation shows that the predicate for regulation does not exist and that pipelines function in a broadly competitive environment. This competition has a number of forms. There may be direct competition among two or more lines, for example but, perhaps most importantly, the oil shipped through a given pipeline -- and even where only one line serves a given field -- confronts competition from domestic and foreign oil transported by other pipelines and by other types of transportation in the markets in which the oil is refined and distributed. Pipeline carriers are thus constrained in the prices they can charge for their services.

As well, oil pipelines have long lives that can extend well beyond the duration of the reserves they are initially built to serve. If those who invest in the construction of the lines are to attract the traffic they require to amortize the cost of construction, they must set rates in the short-run that will encourage long-run exploration and development of oil from areas they can reach. These and other competitive influences lead to the conclusion that oil pipelines in the United States are constrained by market influences and do not possess supposed monopoly power.

What is true generally of competition as it relates to the oil pipelines is also true of the Trans-Alaska Pipeline System (TAPS). Completed in 1977, at a cost of $9 billion, for the purpose of transporting oil from the Alaska North Slope (ANS) to a terminal at Valdez, TAPS is a unified physical entity but involves the operations of eight separate and independent carriers. These carriers establish their own rates (which differ significantly from one another) and transport oil for the various ANS shippers. Some of these shippers are affiliated with the pipeline owners, but others are not. Since the carriers' rates differ, shippers routinely seek out those with the lowest available charges, a fact that means that the carriers ship substantial volumes of oil of unaffiliated users.

Since the ANS crude oil transported by the eight TAPS carriers competes in U. S. end-use markets with an abundance of oil from other domestic and foreign sources (transported by diverse pipelines and transportation modes), its delivered price -- inclusive of the cost of transportation via TAPS -- is constrained by market forces. This is true of Alaska North Slope oil delivered to West Coast refineries (where it competes with oil from California and from foreign countries) and to Gulf Coast refineries (where it competes with oil from Texas, Louisiana, and from various foreign countries, including Mexico). The delivered price of oil from these alternatives sets the price to which ANS oil, moved over TAPS, must conform.

The TAPS pipeline commenced operations in 1977 to serve the Prudhoe Bay Unit and has an anticipated life that will extend well into the next century. While the investors plan to amortize its cost over a comparable period, they can do so only if they have an adequate supply of oil to transport. However, output from the Prudhoe Bay Unit itself is expected to begin to decline markedly in the late 1980's, reaching an estimated volume of only 300,000 barrels per day by the year 2000. This latter figure is equal to only a fifth of the current volume transported by the TAPS line. It is thus in the interest of the TAPS carriers, aware of the many years required to develop new oil reserves, to maintain rates in the short-run that will encourage exploration that offers the potential of generating traffic in the 1990's and beyond. These vital long-term considerations also help keep the rates charged by the TAPS carriers at reasonable levels.

The competitive and related factors summarized above (and dealt with at greater length in the accompanying report) obviate the need for continuing regulation of TAPS (as well as other oil pipelines). With decontrol the TAPS carriers will remain constrained in the rates they charge by competition from other oil in destination markets, by their long-term need to encourage the development of oil they can transport through the TAPS line, and by potential competition from Alaskan on-shore or off-shore oil that could be shipped by other (new) pipelines or marine transportation. In this economic context it is the marketplace, not regulation, that protects consumers and producers from unreasonable pricing or related practices of the TAPS carriers.

Continued regulation of oil pipelines, in Alaska as well as the Lower 48 states, is economically unwarranted. More than that, however, decontrol of oil pipeline rates would remove what has proven to be an administratively burdensome and costly form of regulation that has created unnecessary risks for future pipeline investments. By eliminating oil pipeline rate regulation throughout the United States, and relying instead on competitive market forces, these risks would be removed and productive pipeline investment, vitally important to the development and efficient use of the nation's oil reserves, would be encouraged.

I

OIL PIPELINE DEREGULATION: AN ECONOMIC PERSPECTIVE

The two pending bills (H.R. 4488 and S. 1626) provide for deregulation of rates for the transportation of oil by pipeline common carriers. From an economic perspective the objectives of both bills are sound and consistent with the public interest, manifesting the view that competition can be relied upon as the guiding disciplinary force. They are, however, defective in that they would continue to impose regulation on the carriers that transport crude oil from the Alaska North Slope (ANS) via the Trans-Alaska Pipeline System (TAPS). Amendments being considered in both houses would remedy this deficiency and remove from rate regulation all oil pipelines in the United States, including the TAPS carriers.

From the standpoint of economic logic and fact there is no reason, as this paper will show, why the TAPS carriers should be treated differently from oil pipeline carriers in the Lower 48 states. All are subject to competition and all should be treated the same and freed from the needless and counter-productive constraints of existing economic regulation.

Basic Economic Considerations Pertinent to Oil Pipeline Competition and Regulation

Pipelines represent an efficient, safe, and reliable form of transportation for the movement of crude oil and products. They play a vital role in the petroleum industry and, due to the low cost of the service they offer, benefit those who consume any of the many petroleum products.

Because of their sheer physical scale the number of pipelines connecting any two geographic points is not likely to be large. For certain point-to-point markets there may be two or more lines in service, whose ownership may be shared among a number of independent carriers. In some situations, however, there may be only one line serving a given origin and destination (more than one carrier, though, may nonetheless be involved). This has led some to infer that at least some oil pipelines are in a monopolistic position and may be able to price or otherwise behave in an anti-competitive fashion.

Analysis demonstrates, however, that oil pipelines -- even where there may be only one serving a given market -- are subject to a broad range of competitive forces. As is demonstrated in the new study by Edward J. Mitchell[1] (and in the assessments of other economists) an oil pipeline confronts actual or potential competition from other modes of transportation (barge, tanker, truck) as well as from alternative sources of crude supplied from locations which the pipeline cannot serve. As well, the ownership of any given oil line may be shared by two or more carriers which can and do compete with one another in the rates they charge. In addition, geographically dispersed refineries -- served by different crude oil pipelines (and other modes) -- compete with each other in the sale of petroleum products in overlapping consuming markets. All of this means that an oil pipeline carrier is forced to act competitively, for if it seeks to do otherwise, it risks the loss of business and jeopardizes the investment it has made.

---

[1] A Study of Oil Pipeline Competition (April 1982).

In effect, market forces dictate maximum delivered prices paid by consumers; competition also determines the level of oil pipeline rates relative to wellhead values. Since no carrier controls the supply of oil, or is in a position to exclude other transporters serving other available reserves, the rates it charges must reflect the discipline of the marketplace. This is the essence of competition and it means that the TAPS carriers cannot raise the delivered price of ANS crude by increasing their charges. Economic factors likewise constrain their rates vis-a-vis those who ship oil over TAPS since carriers risk a reduction in the exploration required to generate future oil production. New oil production is needed to generate revenue for the carriers after the Prudhoe Bay Unit's output begins to decline and before the TAPS line investment has been amortized.

Related to this -- and giving accentuated emphasis to the role of competition -- is the long-lived character of oil pipeline investments. When put in service -- at immense cost -- a pipeline typically has a physical life of 30 years or more. The investment commitment is also extended over time, so that amortization calls for use of the pipeline for a number of decades. With respect to a new line in a pioneer area -- such as TAPS -- the life of the economically recoverable petroleum reserves it serves at the outset will be exhausted, substantially depleted, or certainly declining well before the end of the line's life (and related period of amortization). For the carriers owning a line, therefore, rates must be set not only at levels in the short-run that reflect competitive conditions but in a manner that encourages the long-term development of new oil production. This adds still another constraint on the pricing of oil pipeline transportation.

Basic Competitive Forces Govern the Eight TAPS Carriers

Oil pipelines in the Lower 48 states, as is widely recognized among those familiar with the situation, function within the multi-dimensional competitive environment summarized above. In the shipment of crude the carrier involved (sometimes owning an undivided interest in a single physical line) competes in its pricing and marketing efforts to attract volume. Thus, if two carriers each have 50 per cent undivided ownership interests in a pipeline and neither has sufficient volumes tendered by shippers to utilize half of the line's capacity, then each must attract additional petroleum from other shippers. Pipeline carriers also compete with other modes and indirectly with sources of supply they do not serve. In the delivery of oil to refineries they meet still other competition — from other crude sources; from other refineries, with access to other oil, that serve common areas of product distribution; and from other modes (and in some instances other pipelines) serving alternative production sources. It is this competition which H.R. 4488 and S. 1626 correctly recognize as a basis for decontrol of the Lower 48 oil pipelines.

Competition, however, is also present in the transportation of ANS oil via TAPS. Without dealing here with the key points at length (more detailed discussion will follow), it will nonetheless be useful to highlight five of the competitive features pertinent to the oil transported from the North Slope by the TAPS carriers.

(1) To correct a common misimpression, TAPS is not a single monolithic entity. Rather, TAPS is a jointly owned (and efficient) physical facility which is used by eight separate common carriers. These carriers set their own rates independently and in accordance with their own economic assessments. Significantly, their rates differ and have differed from the time the owners filed their first tariffs in 1977.

(2) While ANS oil moved by the eight carriers through the TAPS line is presently substantial in volume, it is not unique, and in the destination U. S. markets in which it must be used it competes with oil from other American and diverse foreign sources. Since ANS crude must compete with substitutable oil at the refinery, it is the delivered price and availability of other oil that set the final price at which ANS oil can be sold. This is potent competition and with worldwide petroleum supply rising (and demand falling), declining global oil prices directly affect all those concerned with the production and transportation of ANS oil, including the TAPS carriers.

(3) The eight carriers that share use of the TAPS line are not identically postured. Some have relatively large shares of the line's capacity, others much smaller shares (four have percentages of less than five per cent each, with the other four having separate interests ranging upwards from 16.67 per cent). While the affiliates of some carriers produce enough Prudhoe Bay

Unit oil to make full use of the carriers' shares of pipeline capacity, in other cases affiliates of pipeline owners do not produce sufficient crude to fill the carriers' ownership shares. Independents as well as affiliates of pipeline owners tender their oil first to carriers who offer more favorable rates, with the result that each carrier often transports more oil of unaffiliated producers than of its own affiliate.

Over time, and as Prudhoe Bay Unit production declines (expected to begin in the late 1980's), the prospect is that the imbalance between carriers' shares of line capacity and the pipeline affiliates' petroleum production will change considerably, with an accentuation of competition for traffic as all carriers seek to fill their capacity shares.

(4) Not all those with Prudhoe Bay oil production are affiliated with a TAPS carrier. The state of Alaska itself has a one-eighth interest in crude production, for example, and some ten private firms (with smaller production) are similarly situated. All shippers are concerned with obtaining the best price they can get for the transportation of their oil. Over time it is probable that even more new firms will commence ANS production and thus fall into this category, with consequent competitive ramifications.

(5) In pricing their services in the short-run the eight TAPS carriers must take account of their need for traffic in future years, well after production from the Prudhoe Bay Unit has

commenced to decline. Since the pipeline rates affect the wellhead yield available prospectively to potential producers, they influence the incentive to explore on the ANS as compared with other geographic areas. Charging excessive rates in the short-run would discourage such exploration activity and risk serious financial harm to the carriers, given their commitments (which extend well into the next century). These factors will constrain each carrier's pricing even without regulation.

In composite these interrelated considerations define a dynamic and vigorous competitive environment for the TAPS carriers. Accordingly there is no reason why the eight carriers who share use of the TAPS line should be singled out for continuing regulation while pipelines operating in the Lower 48 states -- also subject to competitive forces -- are freed from regulatory inhibitions.

There Is No Need for Oil Pipeline Regulation or Public Interest Justification for its Perpetuation

Given the applicable economic facts it is apparent that competition -- in all its diverse forms -- disciplines the pricing of the TAPS carriers. Continued regulation is thus unnecessary. More than that, it is detrimental to the national interest in the development of American oil resources, which will continue to require large additional investment in pipeline construction and expansion (as well as in other physical facilities). Recent experience has shown that regulation is not just costly and burdensome but creates a thick cloud of uncertainty that threatens to discourage pipeline investment. This has serious long-run deleterious implications for this country's energy strategy.

From the standpoint of the public interest, since competition sets the boundaries for the pricing of petroleum, regulation to protect the consumer is needless and, indeed, negative in its effects. Further, independent producers and producers affiliated with pipeline owners, suffer alike from the market distortions inherent in the application of price controls. Potential producers seek to establish the true long-run economic costs -- including transportation -- of Alaska crude sources vis-a-vis other locations of crude oil before committing capital. Regulation, by denying the opportunity for competitive forces to establish pipeline rates, can inhibit desirable investment. In the case of TAPS, while one party -- the state of Alaska -- might profit in the short-run (at the expense of the Federal Treasury and of those who built the line) from artificially contrived rates generated by regulation, the American public generally would not benefit, for it is competition, not regulation, that is the determining factor in assuring efficient use of economic resources. This clearly calls for an end to oil pipeline regulation, in Alaska no less than in the Lower 48 states. The ensuing assessment provides more detailed elaboration of the considerations warranting this conclusion.

II

ALASKA NORTH SLOPE OIL TRANSPORTED BY THE EIGHT TAPS CARRIERS COMPETES WITH OTHER SOURCES OF CRUDE

Alaska North Slope oil is but one among many sources of supply for the U. S. market. Refineries that can use ANS crude also can employ crude from foreign as well as Lower 48 production. Indeed there is now an abundance of supply, in part reflecting a slowing of demand for petroleum products in the face of increased reserves of oil around the world. This competition sets the effective delivered price of ANS oil and the eight TAPS carriers — as well as all who produce oil in Alaska -- are compelled to adapt to this competitively determined petroleum price. In the final analysis it is competition, not regulation, which will constrain the pricing of the services offered by the eight TAPS carriers and of the ANS crude which they transport.

U. S. Markets in Which ANS Oil is Distributed

Under existing law all of the ANS oil must be used in the United States and its territories. Under prevailing conditions the most obvious area in which it can be distributed is along the West Coast, to which shipments are made from Valdez in large tankers. However, market conditions -- including other available and competing sources of supply — have been such that not all of the ANS crude can be sold along the West Coast (in fact in December 1981 Alaskan crude accounted for less than half of that received at West Coast [PAD V] refineries[1]). A sizable share thus must be distributed elsewhere in the Lower 48 states. Since the only major pipeline capable of transporting crude from the West Coast eastward has a capacity of only 60,000 barrels per day (bpd), most of the ANS crude not marketed in this area has been moved by water through the Panama Canal and into the Gulf of Mexico. Because this involves transloading into smaller U. S. flag vessels that can transit the Canal, the cost of water transportation is relatively high (about $5 per barrel).

---

[1] Petroleum Administration for Defense (PAD) V consists of Washington, Oregon, Arizona, Nevada, California, Hawaii, and Alaska.

The volume of ANS crude shipped to destinations along the Gulf of Mexico varies considerably, depending on the balance of supply and demand on the West Coast. At times, however, as much as a third (and sometimes more) is shipped to the Gulf. Panama Canal Commission statistics show that the ANS volume moving via the Canal has been increasing, rising from 114 million barrels in its Fiscal Year 1979 to 158 million barrels in its FY 1980 and to 175 million barrels in its FY 1981.[1]

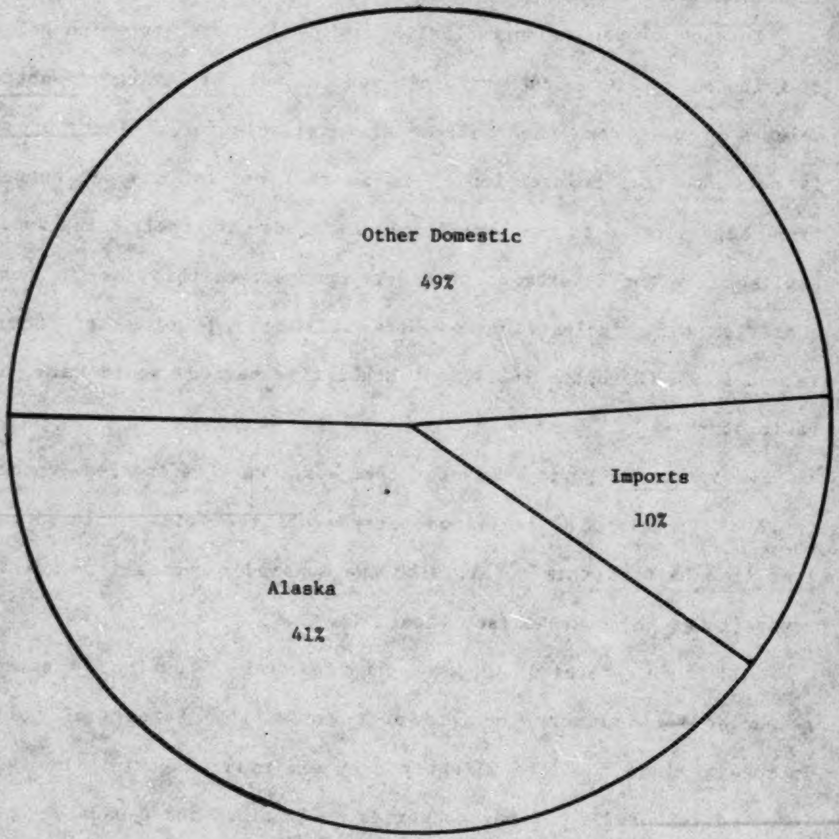
At any given time the share of the ANS oil moved to the Gulf depends on a number of factors, including West Coast demand, the volume of foreign imports, the amount of oil from other domestic sources, and, of course, the comparative delivered prices of alternative foreign and domestic supplies. The interaction of these factors sets the market terms which govern the sale of crude produced on the ANS and transported by the TAPS carriers.

---

[1] At the rate of ANS transits experienced in the first five months of the Canal's FY 1982, volume this year will exceed 200 million barrels. Transits in March and April 1982 actually surpassed this rate.

Figure 1

SHARES OF REFINERY RECEIPTS OF CRUDE OIL,
BY SOURCE, PAD V (WEST COAST), DECEMBER 1981



Source: DOE, Monthly Petroleum Statement.

In the Lower 48 Markets Where ANS Crude is Distributed It Faces Intense Competition From Other Sources of Supply

In each of the two principal areas of the U. S. in which ANS oil is distributed -- along the West Coast and the Gulf of Mexico -- substantial volumes of oil from other sources are available for refinery use. This is not potential competition -- it is real day-in, day-out competition from suppliers with an abundance of crude at their disposal. Data published by the Department of Energy demonstrate this, as the following summaries will indicate. Use here will be made of statistics for a recent month (December 1981), but other time periods would tell the same basic story.

West Coast. During December 1981 West Coast refineries (categorized in PAD V) received 67.4 million barrels of crude oil.[1] Alaska provided less than half of this total, with the remainder coming from foreign and other (Lower 48) sources (see Figure 1).

All told, foreign imports entering PAD V during December 1981 accounted for refinery receipts of seven million barrels of crude oil. Indonesia alone supplied slightly over six million barrels of the crude imported into PAD V. Other countries -- Trinidad and Canada -- accounted for the remainder.[2] During other months of 1981 crude was also obtained from Egypt, Algeria, Saudi Arabia, Oman, and Malaysia.

---

[1] DOE, Monthly Petroleum Statement (December 1981) [hereinafter Monthly Petroleum Statement] Table 14.

[2] *Id.* at Table 10.

In terms of competing domestic supplies of oil for PAD V refineries, California, as might be expected, is dominant. During October 1981 wells in California produced more than 33 million barrels of oil.[1] Contrary to experience in other Lower 48 producing areas, California oil output has been rising (including the production of light oil) and is expected to increase by about 1-2 per cent annually during the next few years.[2] Since California oil is situated closer to the state's large refineries -- delivered by pipeline and in some cases by truck -- it presents formidable competition for oil from Alaska (although it, too, must compete against imports).

Looking to the future, it is expected that "the U. S. West Coast will be awash with crude through the rest of the century."[3] As a result shipments of crude from the ANS to the Gulf of Mexico are projected to double by 1985. Since California crude has a locational advantage on the West Coast, ANS crude will remain the incremental source of supply in a market in which product demand has fallen (and is unlikely to expand) and in which imports pose a continuing supply alternative. These factors signal increasing competition for sellers of North Slope oil.

Gulf of Mexico. As noted earlier, some of the ANS oil -- at times as much as a third -- cannot be sold on the West Coast and moves into the Gulf of Mexico for distribution. There it competes with literally a

---

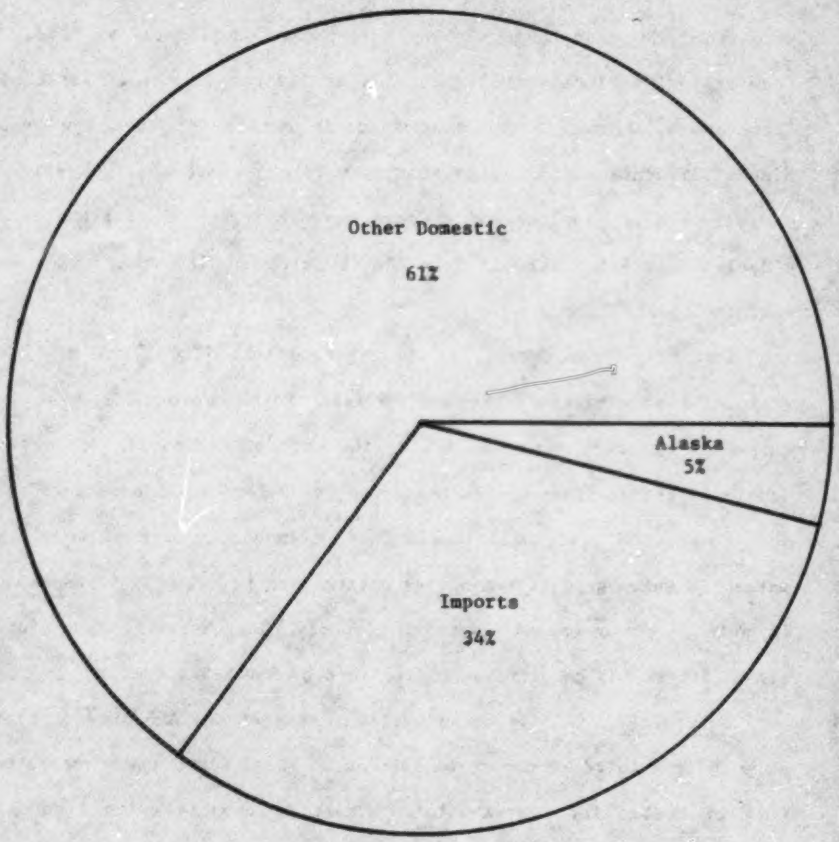
[1] Id. at Table 17.

[2] Oil and Gas Journal (December 7, 1981) at 73 and (April 5, 1982) at 127.

[3] Id. (April 12, 1982) at 51.

Figure 2

SHARES OF REFINERY RECEIPTS OF CRUDE OIL,
BY SOURCE, PAD III (GULF), DECEMBER 1981



Source: DOE, Monthly Petroleum Statement.

flood of other domestic and foreign oils. In December 1981 refineries located in PAD III (a defined region that includes Texas, Louisiana, Alabama, Mississippi, Arkansas, and New Mexico) reported receipts of 171 million barrels of crude oil.[1] About 34 per cent came from imports, the remainder from domestic sources[2] (see Figure 2).

Of the crude imported into PAD III during December 1981 (of which some but not all was used at refineries in that area) 26 million barrels came from Arab OPEC countries (Saudi Arabia alone accounted for almost 20 million barrels), with non-Arab OPEC countries supplying almost 16 million barrels.[3] Other major suppliers included the United Kingdom (North Sea), Norway (North Sea), Angola, Egypt, Trinidad, and Mexico. Mexico, with vast new deposits of oil having been discovered in recent years and now the world's fourth biggest producer, exported nearly 16 million barrels of oil to the United States (all areas) during December 1981 making it one of our chief suppliers and a competitive source of even greater potential consequence.

Price Competition. Given the plentiful supply of crude oil in the Lower 48 areas in which ANS oil is marketed, namely on the West Coast and along the Gulf of Mexico, price competition is intense. In fact, as is now widely known, the price of oil has declined markedly during the past year. Just between March 1981 and December 1981 the refiner-acquisition cost of crude oil fell by nearly ten per cent for oil from domestic sources and by nearly as much for imported supplies.[1] Since the beginning of 1982 prices have fallen still more, to levels below the $34 target price which OPEC has sought to achieve. Currently the price of oil on the world market is said to be close to $31 (down from $36 or higher a year ago), with many experts projecting that it will fall to $28 -- or below -- by the end of the year.[2] Some authoritative observers envision further price declines in 1983 due to an imbalance of supply relative to probable demand.

---

[1] Texas Gulf and Louisiana refineries accounted for 87 per cent of PAD III crude receipts.

[2] _Monthly Petroleum Statement_ at Table 14.

[3] _Id._ at Table 10.

Recent Changes in Worldwide Oil Demand and Supply Have Intensified the Competition Confronting ANS Crude

Recent trends in the demand for and the supply of oil, worldwide, will increase competition further in the sale of crude. This bears directly on ANS oil and those who produce and transport it, for this competition sets the final delivered price at which ANS oil can be sold in the United States.

The demand for oil has slowed considerably since 1979 while its supply (as measured in reserves) has increased substantially. Petroleum consumption in the member countries of the International Energy Agency (IEA), which include the principal industrialized nations, fell by about 12 per cent between 1979 and the autumn of 1981.[3] This has been mirrored in the U. S. as well, whose petroleum use has fallen each year since 1978 (our petroleum demand declined 16 per cent from 1978 through 1981).[1] This trend is continuing. In the week ended March 12, 1982, for example, total U. S. demand for petroleum products was down 3.6 per cent from the same week a year earlier.

---

[1] DOE, Monthly Energy Review (March 1982) [hereinafter Monthly Energy Review] at 76.

[2] Business Week (March 22, 1982) at 66, 69. Some observers project a decline to the $20-25 range or lower.

[3] Monthly Energy Review at 90.

Meanwhile, however, worldwide oil reserves have grown substantially, up by about seven billion barrels between 1979 and 1981 despite a decline in U. S. oil reserves of about one billion barrels. To cite one major illustration, Mexico, a large supplier at present to the U. S. and potentially of much greater consequence, reported oil reserves in 1979 of 31 billion barrels which increased to an estimated 57 billion barrels in 1981.[2] It plans to export 1.5 million barrels daily (about equal to current ANS production) and has announced a seven per cent reduction (effective March 1982) in the price of its better-grade oil.[3]

The twin forces of a slowing in oil demand and an increase in reserves have brought about noticeable downward pressure on oil prices, as noted earlier. This has resulted in a reduction in crude oil production, with 1981 world crude oil output down 6.2 per cent from 1980.

These important developments are not passing phenomena. An oversupply of oil is expected to persist for years, due to recent and anticipated discoveries juxtaposed against a rate of growth in demand that is likely to fall below the pace of economic expansion. This will intensify competition among sources of supply, with the prospect that the world oil price will increase only slowly in coming years (one study forecasts real average annual price increases for oil of but 2.5 per cent from now through the end of this century as compared with increases averaging 29 per cent a year since 1973).[1]

---

[1] Id. at 6.

[2] Oil & Gas Journal (December 28, 1981) at 87 and (December 31, 1979) at 71.

[3] New York Times (March 31, 1982) at D7.

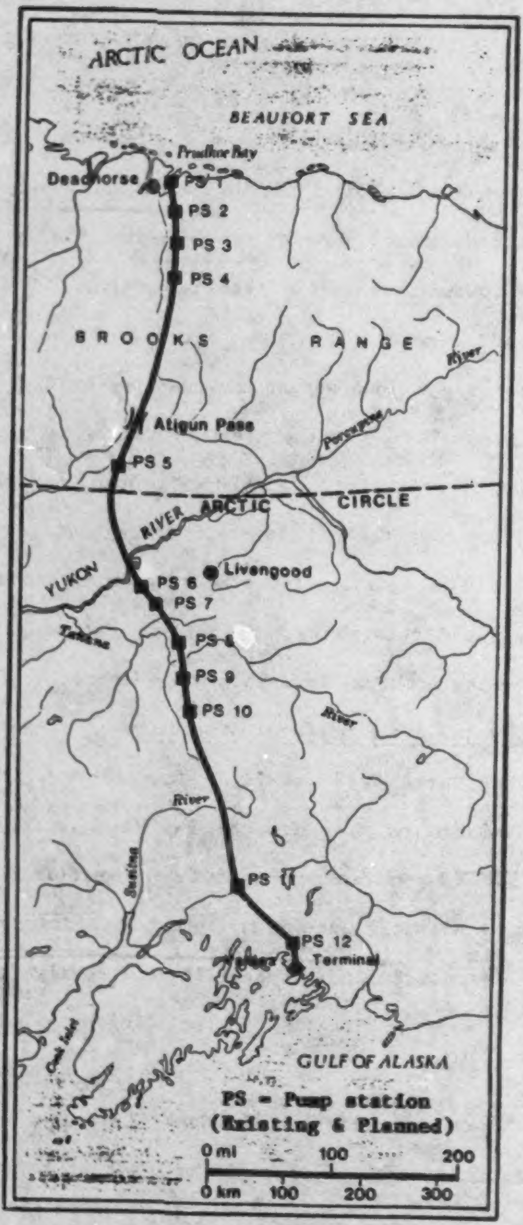
All of these extant and emerging market forces bear heavily on those firms involved with ANS oil. While the Alaskan oil reserves are substantial, so too are the reserves of oil in other countries as well as in the United States itself (apart from Alaska). If the North Slope oil is to be sold in the quantities that will keep each TAPS carrier's share full, it is evident that ANS oil will have to meet a market price (i.e., at the refinery gate) that will be determined by bountiful alternative sources of supply and by a constrained level of demand. The eight TAPS carriers, no less than the producers of ANS oil, must be aware of these competitive forces. They are compelled by the laws of economics to respond to the short-run dictates of the market while considering longer-term consequences. Given the competitively determined world selling price of crude, any increase in TAPS rates would serve only to lower wellhead prices of ANS crude and consequently discourage development of new ANS sources on which the carriers depend. Thus, the balance between pipeline rates and wellhead prices is also subject to competitive market forces, as described in Part III.

---

[1] Chase Manhattan Bank, The World Energy Outlook Through 2000: A Time Of Transition (1981).

Figure 3

MAP OF THE TAPS ROUTE


ARCTIC OCEAN
BEAUFORT SEA
Prudhoe Bay
Deadhorse
PS 1
PS 2
PS 3
PS 4
BROOKS RANGE
River
Porcupine
Atigun Pass
PS 5
ARCTIC CIRCLE
YUKON RIVER
Livengood
PS 6
PS 7
Tanana
PS 8
PS 9
PS 10
River
River
Susitna
PS 11
PS 12
Valdez
Terminal
Cook Inlet
GULF OF ALASKA
PS = Pump station (Existing & Planned)
0 mi
100
200
0 km
100
200
300

Source: U. S. Geological Survey.

III

COMPETITION IN THE TRANSPORTATION OF ALASKA NORTH SLOPE OIL

Currently something in excess of 1.5 million barrels of oil are transported on an average day from the Alaska North Slope to Valdez. All of this oil is transported through the TAPS pipeline, a fact that has led some observers to the superficial conclusion that the line is a de facto monopoly and will remain such in the future. In economic reality, however, there are eight independent and differentially postured carriers who operate through TAPS. As the present Prudhoe Bay Unit reserves begin to decline (starting in the late 1980's) competition among the carriers will intensify as they seek to maintain throughput and thereby generate the revenue needed to amortize investments that extend well into the next century. These and related factors depict, not supposed monopoly, but competition, as the ensuing discussion will demonstrate.

TAPS -- Its Physical and Functional Attributes

In physical terms TAPS consists of a 48-inch pipeline stretching approximately 800 miles from Prudhoe Bay (technically the Prudhoe Bay Unit) in the north to Valdez in the south and associated terminal facilities and pumping stations (see Figure 3). Its history traces to a 1969 decision to construct a pipeline facility with daily capacity of 600,000 barrels, but the final details -- including an election to increase capacity to 1.2 million barrels per day (bpd) -- were arrived at in 1974. Construction began that year and the line started service in the summer of 1977. Built at a cost of about $9 billion, it represents the largest private investment undertaking in history and one of the most formidable engineering ventures ever initiated.

In functional terms the TAPS line was designed for the immediate purpose of transporting ANS oil from the Prudhoe Bay on-shore reserves for eventual use in the United States. Although the Prudhoe Bay reserves are sizable, and annual average daily output is limited by the state of Alaska to 1.5 million barrels, it has been known since the outset that production will begin to decline in the late 1980's. By one estimate Prudhoe Bay output may be as low as 300,000 bpd by the year 2000.[1] The TAPS line, by contrast, has a physical life that will extend to and probably beyond the year 2012. While the line is presently being fully used, therefore, over the long-run production from other reserves will be required in order to exploit its large capacity.

When opened in 1977 the TAPS line had a mechanical capacity of 1.2 million bpd. Since then its mechanical capacity has been increased to 1.42 million bpd through additional investment and engineering modifications and, through operational improvements, TAPS recently has handled in excess of 1.5 million bpd. With construction of additional pumping stations, TAPS could, if economically justified, carry 2 million bpd.

Every barrel of ANS oil now being produced (including a comparatively small amount from new production in the Kuparuk River field west

---

[1] Report of the Comptroller General to the Congress (EMD-81-11, January 6, 1981) [hereinafter Comptroller General Report (EMD-81-11)] at Appendix I, p. 58.

Figure 4

EIGHT CARRIERS OPERATE VIA THE TAPS PIPELINE

Carrier	Interest (%)	Share of Daily Throughput (In barrels)*
Sohio Pipeline Co.	33.3363	500,045
Arco Pipeline Co.	21.3547	320,321
Exxon Pipeline Co.	20.3378	305,067
BP Pipelines, Inc.	16.6745	250,118
Mobil Alaska Pipeline Co.	04.0845	61,268
Phillips Alaska Pipeline Co.	01.3561	20,342
Amerada Hess Pipeline Corp.	01.5000	22,500
Union Alaska Pipeline Co.	01.3561	20,342

* Expressed as share of approximate daily throughput of 1,500,000 barrels.

of Prudhoe Bay)[1] is being handled by the TAPS carriers. While some allege, without supporting facts, that pipeline owners seek to underdesign pipelines to restrict supply, it is clearly in the economic interests of pipeline firms to construct lines with sufficient capacity to carry all of the crude oil that is tendered. It is no less in the interest of a producer investing in a pipeline to seek sufficient capacity to move its product to market. Similarly, once a pipeline is in place, pipeline owners will seek to maximize throughput as a matter of economic necessity, given the need to amortize their investments. Thus, the experience of the TAPS carriers is consistent with rational competitive behavior, not with vague allegations of monopolization.

What we have in TAPS, therefore, is a highly efficient means of transporting ANS oil for the U. S. market (Prudhoe Bay crude moves over the 800 miles at a cost of about 3/4 of a cent per barrel mile) but as well a costly, long-lived asset whose continued financial viability depends both on the delivered price of ANS oil (relative to prices of other alternative supplies) and on the development of major new reserves. This, as noted later, bears directly on the rates charged by the TAPS carriers, for the rates, in turn, influence exploration on the ANS.

Eight Separate Carriers Operate Via TAPS with Varying Affiliated ANS Oil Production

As previously stated, TAPS is not the name of a common carrier oil pipeline but simply designates a physical pipeline system owned in

---

[1] Production at Kuparuk began in December 1981 and was running at a daily rate of 80,000 barrels at the end of 1981. This oil moves to TAPS over a new 27-mile connecting line.

Figure 5

THE EIGHT TAPS CARRIERS POSTED SEPARATE TARIFFS FOR THEIR TRANSPORTATION OF ANS OIL WHEN THEY COMMENCED OPERATIONS

Carrier	Effective Date of Tariff	Rate/barrel
Amerada Hess Pipeline Corp.	7/1/77	$6.4[illegible]
Arco Pipeline Co.	6/30/77	6.04
BP Pipelines, Inc.	6/30/77	6.35
Exxon Pipeline Co.	6/30/77	6.27*
Mobil Alaska Pipeline Co.	6/30/77	6.31
Phillips Alaska Pipeline Co.	7/20/77	6.22
Sohio Pipeline Co.	7/30/77	6.16
Union Alaska Pipeline Co.	6/30/77	6.09

* Reduced to $5.30, effective January 1, 1982.

Source: Tariffs as initially filed with I.C.C.

undivided interests by eight separate common carrier companies, each of which has the exclusive right to use a specified portion of the capacity of the pipeline facility for its independent business (see Figure 4). The situation is basically no different than if the eight carriers had each built a physically distinct line except that if they had done so shippers and the public would have lost the economies of scale stemming from construction of a single 48-inch line.

Each carrier has its own financial commitment to protect and is thus responsible for pricing and marketing the capacity to which it is entitled and realizing the revenue derived from its traffic volume. Reflecting this, and indicative of their independence, the eight carriers have established and maintained since the outset of TAPS operation different rates. The separate tariffs they filed in the summer of 1977 (see Figure 5) differed from one another by significant margins, ranging from $6.04 per barrel to $6.44 per barrel (a range of over six per cent). In January 1982 one of the carriers, Exxon, reduced its tariff from $6.27 to $5.30 per barrel.

Significant also from a competitive standpoint is that the eight carriers are not like-postured in affiliates' shares of Prudhoe Bay oil production, with account taken of the state of Alaska's royalty (in kind) interest. As can be seen in Figure 6, most of the carriers' affiliates have production in the Prudhoe Bay Unit less than the carriers' shares of the line's capacity (Arco Pipeline, for instance, has 21.3547 per cent of the line but Atlantic Richfield has only 17.740 per cent of production from the Unit). Two producers, Sohio and Phillips, are in the opposite

Figure 6

THE EIGHT CARRIERS' SHARES OF TAPS CAPACITY DIFFER FROM THEIR AFFILIATES' AND OTHER SHIPPERS' PERCENTAGES OF PRUDHOE BAY UNIT OIL PRODUCTION

Entity	Interest in Oil Production		Carrier TAPS Interest		Surplus (Shortage) of Oil Compared With TAPS Interest (Barrels/Day**)
	Per Cent	Barrels/Day*	Per Cent	Barrels/Day*	
Standard Oil (Ohio)	46.511	697,665	33.3363	500,045	197,620
Atlantic Richfield	17.740	266,100	21.3547	320,321	(54,221)
Exxon	17.740	266,100	20.3378	305,067	(38,967)
State of Alaska	12.500	187,500	—	—	187,500
Mobil Oil	1.832	27,480	4.0845	61,268	(33,788)
Phillips Petroleum	1.789	26,835	1.3561	20,342	6,493
Amerada Hess	.471	7,065	1.5000	22,500	(15,435)
British Petroleum	—	—	16.6745	250,118	(250,118)
Union Oil of Calif.	--	--	1.3561	20,342	(20,342)
Ten Other Producers	1.417	21,255	—	—	21,255

* Expressed as share of 1,500,000 barrels of daily oil output from the Prudhoe Bay Unit assuming the state of Alaska takes its share in kind.

** Positive figure denotes net buyer of pipeline service, negative figure denotes net seller of pipeline service.

position, with more oil production than their respective affiliated carriers' shares of line capacity. Not one of the carriers has affiliated oil production equal to its share of pipeline capacity. All are thus net buyers or sellers of pipeline capacity. Moreover, because the tariff rates differ among the carriers, shippers seek out the best available price from among the options available, even if this means using an unaffiliated carrier. The result is that TAPS carriers with the lower prevailing rates are compelled to prorate their capacity among shippers, with the consequence that they typically do not move all the oil of their producing affiliates through their lines.

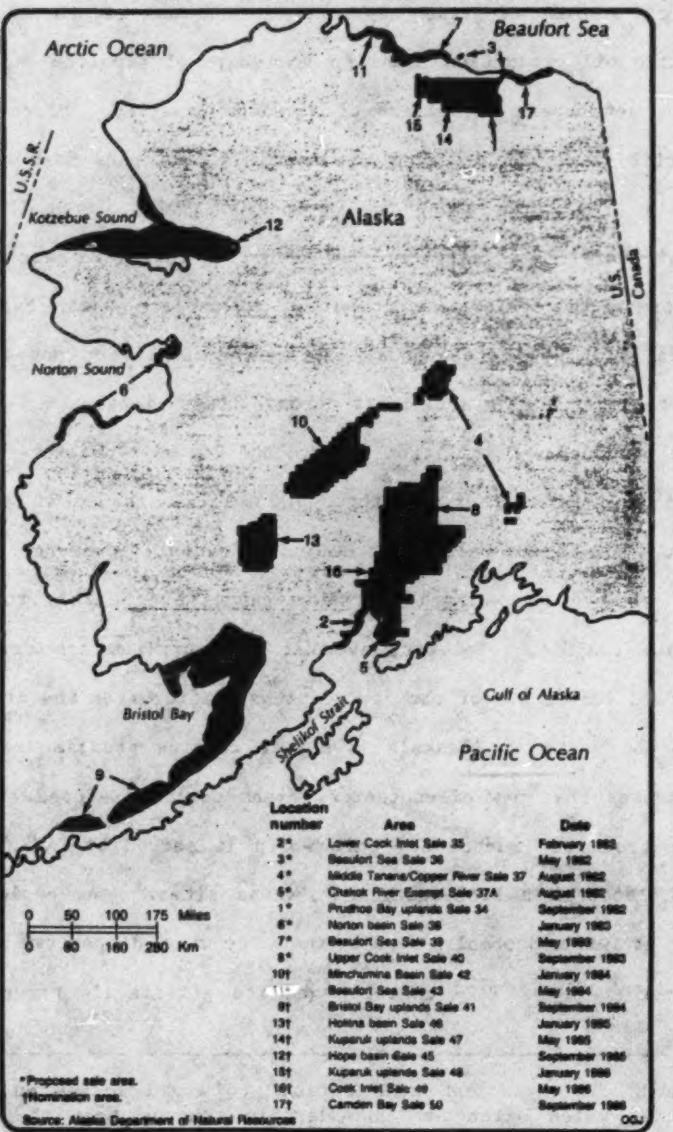
As production of oil from the Prudhoe Bay Unit declines the prospect is that the shipment of oil through TAPS will change in terms of its ownership and in its balance of demand and supply as among the carriers. Absent new production each carrier's capacity is likely to exceed the available traffic. However, even if new supplies are developed, the shares and identities of the producers may differ from the present situation. The state of Alaska's five-year leasing program (see Figure 7) demonstrates that new oil-potential areas to be developed are often far distant from the Prudhoe Bay Unit which is served by TAPS. Similarly, Federal leasing is proceeding at diverse sites.[1] As exploration proceeds, it will probably result in a growing disparity between each carrier's share of TAPS capacity and its affiliate's production. The

---

[1] The U. S. Government also intends to award leases on its Alaskan lands, which often are considerably removed from the Prudhoe Bay Unit. These leases are expected to be awarded in 1982-85. Oil & Gas Journal (January 18, 1982) at 53.

Figure 7

THE STATE OF ALASKA'S PROPOSED FIVE YEAR LEASING PROGRAM ANTICIPATES EXPLORATION IN GEOGRAPHICALLY DISPARATE REGIONS


Arctic Ocean
Beaufort Sea
11
7
3
15
14
17
U.S.S.R.
Kotzebue Sound
12
Alaska
U.S.
Canada
Norton Sound
6
10
4
8
13
16
2
5
Bristol Bay
Shelikof Strait
Gulf of Alaska
Pacific Ocean
9
0 50 100 175 Miles
0 80 160 280 Km
OGJ

Location number	Area	Date
2*	Lower Cook Inlet Sale 35	February 1982
3*	Beaufort Sea Sale 36	May 1982
4*	Middle Tanana/Copper River Sale 37	August 1982
5*	Chakok River Exempt Sale 37A	August 1982
1*	Prudhoe Bay uplands Sale 34	September 1982
6*	Norton basin Sale 38	January 1983
7*	Beaufort Sea Sale 39	May 1983
8*	Upper Cook Inlet Sale 40	September 1983
10†	Minchumina Basin Sale 42	January 1984
11*	Beaufort Sea Sale 43	May 1984
9†	Bristol Bay uplands Sale 41	September 1984
13†	Holitna basin Sale 46	January 1985
14†	Kuparuk uplands Sale 47	May 1985
12†	Hope basin Sale 45	September 1985
15†	Kuparuk uplands Sale 48	January 1986
16†	Cook Inlet Sale 49	May 1986
17†	Camden Bay Sale 50	September 1986

*Proposed sale area.
†Nomination area.

Source: Alaska Department of Natural Resources

Source: Oil & Gas Journal (April 5, 1982).

range of buyer-seller competition will be increasingly broadened, since carriers will have additional surpluses or shortages of line capacity depending on the extent to which their producing affiliates draw down Prudhoe Bay Unit reserves and develop alternative ANS sources.

The Competitive Role of Independent Shippers of ANS Oil Who Have No Ownership Interest in the TAPS Line

There are a number of shippers who have no ownership interest in the line. Their primary concern is to obtain transportation on the best available terms from one or more of the carriers.

Chief among these independent shippers is the state of Alaska itself. It has a 12.5 per cent royalty interest in Prudhoe Bay production and to the extent that Alaska takes its share in kind -- perhaps selling a portion of its oil to others -- transportation is required.[1] Apart from the state of Alaska there are ten other Prudhoe Bay producers who have no ownership participation in the TAPS facility. Although their individual throughput is not large, it still aggregates approximately eight million barrels per year. In combination the state and the independent producers have the ability to produce about 75 million barrels of oil from Prudhoe Bay each year (assuming the state takes all of its royalty share in kind). Using a weighted (by share of capacity) average of the tariffs posted in 1977 as a guide, or $6.20 per barrel, this traffic can yield roughly $465 million annually in revenue to the carrier or carriers who furnish the pipeline transportation (and who bear the

---

[1] The state of Alaska has recently announced that it intends to take in kind and to sell approximately seven-eighths of its royalty oil. Oil & Gas Journal (March 15, 1982) at 46.

Figure 8

MANY OF THE COMPANIES EXPLORING FOR OIL ON THE ALASKA NORTH SLOPE HAVE NO OWNERSHIP INTEREST IN THE TAPS PIPELINE

Companies (Including Affiliates) With Ownership Interest in TAPS	Companies Without Ownership Interest in TAPS
Amerada Hess	Amoco (Standard Oil Of Ind.)
Arco	Ashland
British Petroleum	Champlin
Exxon	Chevron (Standard Oil of Calif.)
Mobil	Conoco
Phillips	Getty
Sohio	Gulf
Union	Louisiana Land and Exploration
	Marathon
	Murphy
	Placid
	Shell
	Tenneco
	Texaco

Sources: Alaska Oil & Gas Conservation Commission; Oil & Gas Journal continuing burden of its construction cost and operation). This is clearly of consequence for any of the carriers, especially as declining ANS production looms on the horizon.

With the anticipated decline of Prudhoe Bay Unit production that is expected to take place beginning in the late 1980's, the role of producers without any ownership stake in TAPS is almost certain to expand. Exploration now underway and expected along the ANS (and in adjacent offshore areas) portends the involvement of new oil owners (see Figure 8) which have no existing ownership interest in TAPS and which in many cases are not currently among those producing oil in the Prudhoe Bay Unit. If and when they develop oil for production, their concern will be to arrange transportation (by one of the eight TAPS carriers or by some potential new means of transportation) at the lowest available cost. Too, as companies now producing oil at Prudhoe Bay explore in other ANS areas (off-shore or to the west or east of the Unit), the relative shares of oil they will ship are likely to change. As all of these factors evolve the eight carriers will be forced to compete as they struggle to obtain traffic to fill their shares of TAPS capacity.

In setting rates under deregulation, the carriers thus must price in a manner that protects their long-run interests. Carriers must encompass long-run considerations in their rates, recognizing that an excessive current rate could chill exploration on the part of those who might in future years provide a sizable share of throughput. Moreover, excess rates would encourage the construction and development of competing transportation alternates. Since the carriers cannot now know who will be producing oil in coming years (and since those interested in exploring for oil have a wide range of options, including other parts of the United States as well as in other countries), it is in each carrier's economic interest to establish rates that encourage developmental activity on the North Slope. This essential long-term view bears heavily on the present ratemaking environment and instills a form of competition that will contribute to the maintenance of reasonable rates via TAPS even without regulation.

Since Prudhoe Bay Production Will Decline Well Before the Carriers Have Amortized their Investments, Competition is Intensified

Pipelines like TAPS involve not just immense initial cost but have a lengthy lifespan -- one that generally exceeds the life of petroleum reserves that the lines are originally installed to serve. In setting rates in the short-run the carriers owning shares of the line must do so with an eye to the future, for today's tariffs influence long-run traffic prospects.[1]

In the case of TAPS the stipulated service life of the facility is approximately 35 years from its opening for service.[2] This puts the end of its life in the year 2012, long after production from the Prudhoe Bay Unit will begin to decline. Indeed one estimate is that the decline will commence after 1985-1986, with production to fall to 300,000 barrels per day by the year 2000 and to as low as 85,000 bpd by 2005.[1] Since the line is presently carrying over 1.5 million bpd it is obvious that without the development of new production on the ANS the line would be seriously under-used.

---

[1] At least in the Arctic, exploratory drilling alone requires about four years, with development drilling peaking six years from the commencement of exploration. National Petroleum Council, U. S. Arctic Oil & Gas (December 1981) [hereinafter U. S. Arctic Oil & Gas] at Ch. 3.

[2] Parties to FERC Docket No. OR-78-1 have stipulated and agreed to a 30-year service life from January 1, 1982 (stipulation dated February 11, 1982).

While the supply outlook contains sizable risks, the financial implications of a shortfall in TAPS throughput are of pronounced severity. To be borne in mind is that each carrier which owns an interest in TAPS has committed itself to financial terms that extend beyond the twentieth century. While the exact terms vary from carrier to carrier, those of Exxon Pipeline Company are illustrative. To finance its share of the cost of constructing TAPS, Exxon Pipeline Company issued debentures during the mid-1970's with maturities of 25 to 30 years (exact years of maturity range from 2000 to 2004). These debt instruments require, apart from semi-annual interest payments, annual sinking fund payments until maturity of $32.5 million (depending on the year and the detailed governing provisions). Thus involved are obligations stretching well beyond the time when Prudhoe Bay Unit output will be falling.

Given these conditions, it is in the indisputable economic interest of each of the carriers to set rates, now, that will encourage exploration by affiliates and independents alike which could result in new production of oil that would move (and from which carriers could obtain revenue) in coming years. Even though there is excellent potential for new oil production on the ANS, the exploration required takes years and the costs are extremely high (present costs of drilling a well range from $20 million to $40 million at off-shore sites in the Beaufort Sea).[1] A potential producer of ANS oil takes these exploration costs into account, together with other relevant costs including the prospective rates for pipeline transportation via TAPS, in order to project the net wellhead yield. If it is too low, in absolute terms or relative to anticipated yields in other geographic areas available for exploration, the potential producer can shift his emphasis accordingly (either foregoing exploration on the North Slope or reducing ANS commitments). The TAPS carriers are well aware of this and hence must set rates in the short-run that will encourage rather than discourage exploration on the ANS that could assure them of the volume needed in the future to amortize their long-lived investments. This is a key economic factor, one that constrains the pricing of transportation by the carriers over the TAPS line.

---

[1] Comptroller General Report (EMD-81-11) at Appendix I, p. 58. The National Petroleum Council anticipates that current production levels from the Prudhoe Bay Unit will continue "through 1987." U. S. Arctic Oil & Gas at 47.

Potential Transport Competition for ANS Oil

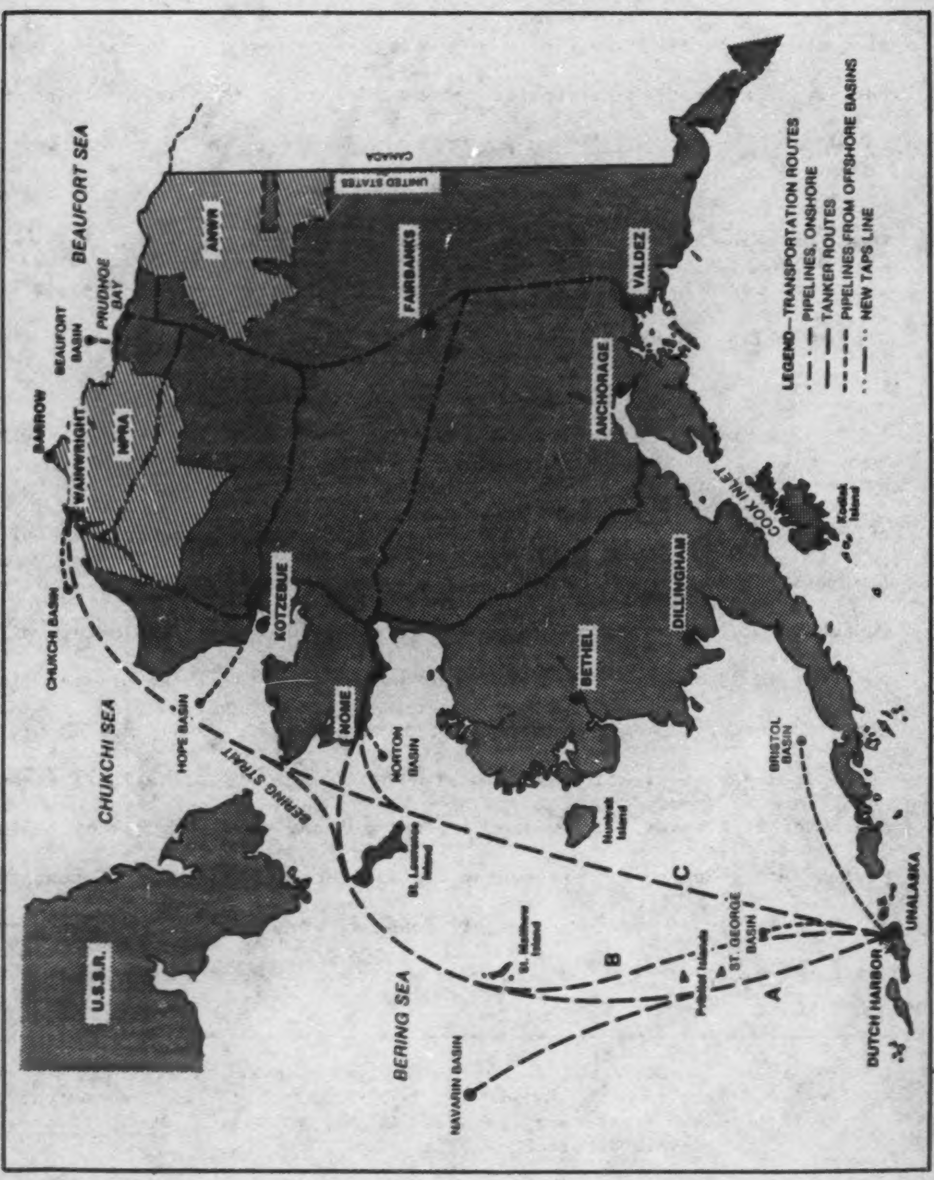
While the eight TAPS carriers now move all of the oil flowing from the Alaska North Slope, the prospect of competition from other forms of transportation cannot be ruled out. One potential alternative is tanker transport from the Beaufort Sea. The technical feasibility of this option has been recognized for a number of years but recently its

---

[1] Oil & Gas Journal (December 21, 1981) at 21-26.

Figure 9

POTENTIAL ARCTIC OIL TRANSPORTATION ROUTES


BEAUFORT SEA
PRUDHOE BAY
BEAUFORT BASIN
BARROW
WAINWRIGHT
NPRA
ANWR
UNITED STATES
CANADA
FAIRBANKS
VALDEZ
ANCHORAGE
COOK INLET
Kodiak Island
DILLINGHAM
BETHEL
KOTZEBUE
NOME
NORTON BASIN
CHUKCHI BASIN
HOPE BASIN
CHUKCHI SEA
BERING STRAIT
St. Lawrence Island
Nunivak Island
BRISTOL BASIN
U.S.S.R.
BERING SEA
NAVARIN BASIN
St. Matthew Island
Pribilof Islands
ST. GEORGE BASIN
A
B
C
DUTCH HARBOR
UNALASKA
LEGEND—TRANSPORTATION ROUTES
PIPELINES, ONSHORE
TANKER ROUTES
PIPELINES FROM OFFSHORE BASINS
NEW TAPS LINE

Source: National Petroleum Council.

economic attractiveness is also being accepted.[1] Recently Dome Petroleum, a Canadian enterprise, announced that it is considering plans to ship oil (and LNG) by tanker from the Beaufort Sea on a year-round basis over lanes to the east (through the Northwest Passage) and to the west (past the northern coast of Alaska and through the Bering Sea) for export to world markets. Indeed Dome announced in 1981 that it plans to buy or build a shipyard for constructing icebreaker tankers and LNG ships.

As development shifts from the Beaufort Sea reserves directly served by the TAPS carriers, and moves east and west from that site and into off-shore drilling locations, the potential for using tanker transport (or possibly new pipelines) is increased. If, as Figure 9 (based on a December 1981 report of the National Petroleum Council)[2] indicates, oil reserves in Alaska and tributary areas prove productive, the prospect is that new transportation systems will be developed. These may involve land pipelines (e.g., from Kotzebue to the Cook Inlet) or marine systems employing icebreaker tankers and operating from, say, the Chukchi Basin or the Bering Sea to a transloading facility at Dutch Harbor.[3] Depending on the location of the new crude oil sources, these alternative transport systems could prove considerably more efficient than attempts to use the existing TAPS facility, but the rates set by each TAPS owner today will influence shipper perceptions of the economic returns from these future transport systems. Since some developers of these reserves will have no ownership stake in TAPS, their concern will be securing transportation at the best price and offering the best service to meet their requirements. In the face of this expanded competition the TAPS carriers, with their long-term commitments and confronted with declining Prudhoe Bay Unit production, must, even in the short-term, set rates that will encourage exploration and prospective development of oil reserves in areas that they can serve.

---

[1] In a 1981 report the U. S. Geological Survey noted that marine systems have been "found to be technically and economically attractive for year-round service in the Arctic." Arctic Summary Report (Open-File Report 81-621) at 64.

[2] U. S. Arctic Oil & Gas.

[3] Id. at Ch. 5 and Appendix I. See also Figure 10, infra facing p. 34.

The Competitive Situation in Summary

Eight separate carriers operate via the TAPS line. Each carrier -- individually bearing financial obligations that extend into the next century -- must price even now with a view to encouraging exploration and development of new reserves that will in coming years replace declining oil output from the Prudhoe Bay Unit. As well, it must continue to price its services so that the ANS oil it transports remains competitive, in destination markets, with alternative domestic and foreign sources of crude.

IV

CONTINUED OIL PIPELINE RATE REGULATION, IN ALASKA AS WELL AS THE LOWER 48 STATES, IS NEITHER NECESSARY NOR DESIRABLE

The premise of the pending legislation is that competition makes continued oil pipeline rate regulation unnecessary. This is true both for oil pipelines in the Lower 48 states and for Alaska since, in each instance, the oil transported must compete for sale with other sources of crude supply that are independently transported and marketed.

More is involved, however, for it is not simply that regulation is economically anachronistic and administratively burdensome; it is also deleterious to the public's interest in the construction and expansion of pipelines that will be required in the long-run development of America's energy resources. Extant regulation, as presently carried out under FERC auspices, has created a climate of uncertainty that threatens to discourage pipeline investment. It thus has a broad negative impact, which decontrol would help correct.

Rate Regulation Of Oil Pipelines is Not Necessary

Prior discussion has shown that ANS oil competes in end-use U. S. markets with crude from other domestic and foreign suppliers in a market in which oil is now bountiful and declining in price (see Part II). Since it is this source competition that sets the price at which ANS oil can be sold, consumers are not endangered by the TAPS carriers or the producers operating on the North Slope, given the constraints of prevailing market conditions. In addition, competition governs the eight carriers which own the TAPS facility, since each carrier must consider the need to set rates to attract the traffic of shippers given the real prospect of declining ANS production (see Part III).

Reflecting this, it is significant to note that no one contends that oil pipeline rate regulation serves to lower the delivered price of ANS crude. Nor would deregulation affect the delivered price. Indeed, none of the private-sector producers of ANS oil has even complained about the rates established by the eight TAPS carriers. The state of Alaska seeks to use regulation to gain lower pipeline rates but, strikingly and as discussed below, its aim is not to reduce the delivered price of ANS oil in domestic markets but rather to gain for itself additional royalty and tax income. Regulation, therefore, is not perceived by pipeline customers -- in Alaska and elsewhere -- as having any direct impact on the price at which oil is sold to refineries for processing and ultimate product sale to the public. This is indicative of the commanding role played by competition. It is also true, as discussed in Part III, that economic forces constrain pipeline rates vis-a-vis wellhead values for affiliated as well as independent producers of ANS crude.

Continuation of Regulation Ultimately Might Benefit Only the State of Alaska

Since it is competition, not regulation, that governs the pricing of ANS oil, decontrol of Alaskan pipeline charges would have no effect on consumers. In this crucial respect there is no need for regulation to protect the American public.

An entity that apparently perceives a long-term interest in imposing regulation on TAPS is the state of Alaska. If it were able to obtain a reduction in the rates charged by the TAPS carriers, the effect would be to raise the wellhead value of ANS oil and thereby increase its royalty and tax income at the expense of the Federal Treasury and the carriers.

Specifically, it is estimated that for a hypothetical one dollar reduction in the tariffs of the TAPS carriers, the state of Alaska would gain from about 23 to 25 cents per barrel (the exact figure depends on the assumptions as to the severance tax rate, the state income tax rate, and accounting apportionment for state income tax purposes). What the state would receive in additional revenue, however, is offset by approximately equal reductions in Federal Government revenue (due to lower net income stemming from the deductibility of the higher payments to the state) and in net revenue for the pipeline owners. The U. S. Treasury alone is calculated to lose $55 million a year (or more) for an assumed one dollar per barrel reduction in the TAPS tariffs. This is hardly trivial in view of the Federal Government's present and forecast budgetary posture.

This, it is to be emphasized, reflects short-run calculations. In the future, if TAPS carriers are successful in inducing new development in nearby ANS areas, additional TAPS capacity may be required. The uncertainties created by regulation, however, may reduce the willingness of TAPS owners and affiliates -- as well as independent producers -- to participate in any additional (non-TAPS) pipeline ventures. Even independent producers who might be thought to gain in the short-run from regulatory actions serving to increase the wellhead price of their crude actually could be worse off as economic incentives to develop pipeline capacity are eroded. Too, independent producers are not short-sighted. Their evaluations of competing exploration and development investments (on the Alaska North Slope and elsewhere) depend crucially on knowledge of economic costs. Pipeline regulation serves to distort these costs (including transportation to market) relative to unregulated, competitively determined values. Since availability of sufficient transport capacity must be weighed in these investment decisions, regulation introduces additional risk.

Regulation could thus inhibit development of the ANS reserves, which in the long-run could be harmful, not only to the producers and carriers, but to the state itself. Such immediate gains in royalty and tax income as the state might realize under regulation could thus be secured at the expense of longer-term losses in revenue and of inhibited development of the Alaskan oil reserves.

Regulation has Proven to be Burdensome, Uncertain of Outcome, and Counter-Productive

Although more than four and a half years have passed since the Federal Energy Regulatory Commission (FERC) assumed regulatory authority over oil pipelines, no final guidelines have been set forth by the Commission as to the rates which the carriers can charge. What has transpired is a lengthy hearing process that produced, at great expense, a mountainous record of documents and testimony. However, no decision has yet been reached by FERC as to the methodology it will use in reviewing rates published in tariffs by the concerned carriers.

The investigation of the TAPS carrier rates began in June 1977 when the Interstate Commerce Commission had jurisdiction (transferred to FERC on October 1, 1977). Phase I hearings before FERC began in February 1978 and continued until mid-March 1979. In all there were 125 days of hearings at which some 80 witnesses gave testimony. The record itself runs to 23,839 pages, with 945 exhibits. An initial decision of the Administrative Law Judge was issued February 1, 1980, from which appeals -- still pending -- were taken to the Commission. A hearing as to Phase II issues has just begun, preceded by extensive discovery (approximately 8.5 million documents have been copied by protestants from the multiple millions produced for examination).

In this setting, extant oil pipeline rate regulation -- as so sharply manifested by FERC's seemingly never-ending investigation of TAPS -- creates a heavy cloud of uncertainty hovering over the oil pipeline investment landscape. As things stand -- and as they have remained for nearly five years -- those who consider financial commitments for pipeline construction or expansion cannot now predict what rates they will be permitted to charge (and hence what revenue they can count upon). Moreover, even if at some unknown date in the future FERC were to articulate regulatory ratemaking criteria, there can be no assurance that they might not later be changed.

The unpredictable factors now associated with oil pipeline rate regulation are of general concern, but particularly in Alaska and adjacent areas. While this region is believed to contain large oil (and gas) reserves on-shore (in sections of the state often considerably removed from the presently operating Prudhoe Bay Unit) and in the surrounding waters (Chukchi Sea, Hope Basin, Norton Basin, Bering Sea, and the

Figure 10

POTENTIAL NEW SYSTEMS FOR THE TRANSPORATION OF CRUDE OIL FROM ALASKA AND TRIBUTARY SEAS

Basin Origin	Transport System	Estimated Land Pipeline Capital Costs ($ in billions)
Region I (On-shore, north of Brooks Range)	Pipeline to Wainwright	$ 1.421
	Wainwright to Dutch Harbor (Arctic Tanker)	
	or	
	Pipeline to Nome	7.855
	Nome to Dutch Harbor (Arctic Tanker)	
	or	
	Pipeline to Valdez	10.737
Region II (Bering Sea)	Nome to Dutch Harbor (Arctic Tanker)	
	or	
	Pipeline to Valdez	12.886
	or	
	Pipeline to Cook Inlet	15.062
	Arctic Tanker to Dutch Harbor	
	Marine Pipeline to Dutch Harbor	
Region III (Beaufort & Chukchi Seas)	Wainwright to Dutch Harbor (Arctic Tanker)	
	or	
	Pipeline to Valdez	14.470
	or	
	Pipeline to Cook Inlet	11.435
	or	
	Pipeline to Nome	8.014
	Nome to Dutch Harbor (Arctic Tanker)	

Source: National Petroleum Council.

Beaufort Sea) -- those that will prove most susceptible to development cannot be forecast with certainty (see Figure 9, facing page 27). When development does take place, however, the National Petroleum Council has concluded that huge new investments in transportation systems will be required.[1] The precise configuration of new land pipelines cannot now be anticipated but lines in the western portion of Alaska -- perhaps extending south to the Cook Inlet -- may have to be built. As well, if reserves along the North Slope prove bountiful, there may be a need for an additional line in the TAPS corridor (construction of a new one million barrel per day pipeline from Prudhoe to Valdez is alone estimated to have a capital cost, in 1981 dollars, of $10.7 billion). As indicated in Figure 10, the cost of building new land oil pipelines ranges upward to $15 billion. This, it should be noted, would be in addition to the cost of necessary marine oil transport systems.

The climate of uncertainty created by regulation is detrimental to pipeline investment of the sort that has to be contemplated in Alaska and elsewhere. Since pipelines play a major role in developing energy resources (and in making oil available for distribution throughout the country), the inhibiting effects of regulation are potentially devastating given the desire of the United States to make greater use of its domestic oil.

---

[1] U. S. Arctic Oil & Gas at Ch. 5 and Appendix E pp. E-7 - E-29.

CONCLUSION

Just as is true of those who operate pipelines in the Lower 48 states, the eight TAPS carriers face competition, including that of other foreign and domestic sources of oil supply. These key ingredients of competition, already intense, have become increasingly so in the face of an abundance of oil contesting for sale in world markets. Further, TAPS carriers must establish rates today to encourage development of new ANS sources (as Prudhoe Bay Unit production declines).

In this setting competition not only sets the price paid by petroleum consumers but also can be relied upon to discipline the rates that oil pipeline carriers can charge for their services. Regulation, in Alaska as well as the Lower 48 states, is unnecessary. More than that, however, decontrol of oil pipeline rates would remove what has proven to be an administratively burdensome and costly form of regulation that has created unnecessary risks for future pipeline investments. By eliminating oil pipeline rate regulation throughout the United States, and relying instead on competitive market forces, these risks would be removed and productive pipeline investment, vitally important to the development and efficient use of the nation's oil reserves, would be encouraged.

Senator NICKLES. Thank you very much. Mr. Van Arsdall?

STATEMENT OF R. THOMAS VAN ARSDALL, VICE PRESIDENT, ENERGY RESOURCES, NATIONAL COUNCIL OF FARMER COOPERATIVES

Mr. VAN ARSDALL. Thank you, Mr. Chairman. I hope not to disappoint the chairman and the Senator from Alaska, but I am not going to talk about TAPS. Someday maybe we can talk about the permitting process and new pipelines such as northern tier where it takes 5 years and 999,000 permits. That is another subject for another day.

Senator NICKLES. It is an important subject.

Mr. VAN ARSDALL. The National Council of Farmer Cooperatives must register strong opposition to oil pipeline rate deregulation as proposed in S. 1626. We do so even though some of our members either own oil pipelines outright or engage in joint ownership in part to overcome problems they have encountered as shippers.

However, these same cooperatives are basically dependent on pipelines in most market areas in which they have no ownership and no reasonable alternative. I would like to point out that the farmer cooperative petroleum system is unique in that the customers or the end users, the petroleum product from this system, are also the owners of that system. Most world markets are served by single pipelines and do not have any alternative forms of transportation that do even remotely compete economically. Highly unreasonable increases in pipeline tariffs due to deregulation would increase farmers' costs of production as well as impacting the entire agricultural and rural economy.

Given the serious state of today's farm economy, and as you know, Mr. Chairman, net farm income levels are forecast to be the lowest since the Great Depression, farmers can ill afford any unreasonable increases in production costs.

The national council is opposed to regulations in and of themselves because in practice, as the chairman knows, they cannot replicate the efficiencies of a normal marketplace. This opposition continues except when we find circumstances when the alternative to regulation is worse. Petroleum pipelines in general do have the characteristics of natural monopolies. This is the rule rather than the exception. A number of careful studies such as the GAO report in 1979 fully document these market circumstances—the competitive advantages of owner/shippers, the inadequate regulatory structure which presently exists, the exceptionally high rates of return on equity, and other basic issues. The very nature of the pipeline system dictates that with few exceptions, true competition as a disciplinary force in the marketplace is not practical.

It is a long-established principle that where such conditions prevail, it is an appropriate and necessary role for the Federal Government to assure equitable treatment of the user community while maintaining a fair rate of return for investors.

Conversely, while we believe deregulation is not the answer, neither is the status quo. It is our belief that Federal regulation of the oil pipeline industry has been only minimally effective at best over the years. Members of the National Council are carefully reviewing the existing regulatory structure in a search for alternatives which would more effectively accomplish these objectives.

Thank you.

[The prepared statement of Mr. Van Arsdall follows:]

Statement of
R. Thomas Van Arsdall
Vice President, Energy Resources
National Council of Farmer Cooperatives

Mr. Chairman and Members of the Subcommittee:

My name is R. Thomas Van Arsdall, Vice President, Energy Resources, of the National Council of Farmer Cooperatives. The National Council is pleased to have the opportunity to appear and testify before this Subcommittee on the issue of oil pipeline deregulation and particularly, from our perspective, the effects deregulation might have on agriculture and rural America.

The National Council of Farmer Cooperatives is a nationwide association of cooperative businesses which are owned and controlled by farmers. Its membership includes 117 regional marketing and farm supply cooperatives, the 37 banks of the cooperative Farm Credit System, and 31 state councils of farmer cooperatives. National Council members handle practically every type of agricultural commodity produced in the United States, market these commodities domestically and around the world, and furnish production supplies and credit to their farmer members and patrons. Two-thirds of United States farmers are affiliated with one or more cooperatives. The National Council represents about 90 percent of the more than 6,400 farmer cooperatives in the nation, with a combined membership of nearly 2 billion farmers.

Among the cooperatives the National Council represents are supply cooperatives which own and operate 5 efficient refineries which have an aggregate production capacity of about 310,000 barrels per day, and whose yields of gasoline, diesel fuel and heating oil amount to approximately 85 to 90 percent of their refined products. While this represents only 2.5 percent of United States refining capacity, cooperatives market petroleum products in more than 40 states and currently supply about 45 percent of all on-farm fuel and a large portion of rural needs.

The National Council would like to register strong opposition to oil pipeline rate deregulation. We do so even though some of our members either own oil pipelines outright or engage in joint ownership in order to overcome problems they have encountered as captive shippers. These same co-ops also are highly dependent on pipelines in which they have no ownership.

Many cooperatives and rural areas in general are highly dependent on a single pipeline company which delivers crude oil and petroleum products to their region. No other method of transporting crude oil or refined product (motor carrier, railroad, barge) to these areas is anywhere near as economically feasible as a petroleum pipeline. Therefore, we believe the market power possessed by most oil pipelines constitutes a sufficient danger to justify the retention of Federal rate regulation.

Future competition is also unlikely from other pipelines, as market demand probably will remain fairly constant in most rural areas with a relatively fixed demand for product at a specific destination. The first pipeline in the market, if that pipeline meets most of the minimum market requirements, will enjoy a cost advantage over potential competitors in that same market. Therefore, competition will not materialize because of the inherently disadvantageous position of new pipelines. Because of the characteristics of the market, the first pipeline, if properly sized, becomes a monopolist in that market. As a result, many petroleum pipelines, in the absence of economic rate regulation, have the opportunity and the power to extract excessive tariffs from any of their customers and shippers.

Pipeline ownership is dominated by major, vertically integrated oil companies which use them to transport their own products. Under current Federal rate regulation, shipper-owners and non-owner shippers pay the same tariff. However, shipper-owners are at a distinct competitive advantage because the portion of the tariff in excess of actual transportation costs is returned to them in the form of dividends. The possible imposition of excessively high tariffs, in the absence of regulation, would sharply increase the distinct competitive advantage shipper-owners already possess.

Conversely, while we believe deregulation is not the answer, neither is the status quo. It is our belief that Federal regulation of the oil pipeline industry has not been that effective over the years. A GAO study released in July 1979 supported this view and recommended that the Federal Energy Regulatory Commission implement rate reform. It also urged that "criteria should be established for determining the justness and reasonableness of oil pipeline rates and sufficient regulatory procedures implemented to assure that the criteria are followed."[1]

We deplore the fact that the FERC has not taken these important steps and would hope that they will proceed to do so expeditiously. We feel action is necessary to assure that the interests of shippers, as well as the public at large, are adequately represented in arriving at fair and reasonable pipeline rates.

Despite the fact that Federal regulatory involvement in rate-making has been limited, we are of the strong opinion that an administrative forum must continue to exist to afford the opportunity for shippers to challenge economically unwarranted increases in pipeline tariffs. Such a regulatory forum is essential, given the market power possessed by most oil pipelines.

---

[1] "Petroleum Pipeline Rates and Competition--Issues Long Neglected by Federal Regulators and in Need of Attention" (U.S. General Accounting Office, 1979)

Due to their geographic location, many rural areas do not have any alternative forms of transportation that could compete economically with oil pipelines. High and unreasonable increases in pipeline tariffs due to deregulation would increase the farmers' costs of production, as well as impacting the entire agricultural and rural economy. Given the serious state of today's farm economy--net farm income levels are forecast to be the lowest since the Great Depression--farmers can ill afford any unreasonable increases in production costs.

In conclusion, Mr. Chairman, we believe petroleum pipelines in general have the characteristics of natural monopolies. The very nature of this system dictates that, with few exceptions, true competition as a disciplinary force in the marketplace is not practicable. It is a long-established principle that where such conditions prevail, it is an appropriate and necessary role of the Federal government to assure equitable treatment of the user community while maintaining a fair rate of return for investors. Members of the National Council are carefully reviewing the existing regulatory structure in a search for alternatives which would more effectively accomplish these objectives.

Mr. Chairman, we appreciate the opportunity to testify today, and would be pleased to respond to any questions that you or other Members of the Subcommittee might have.

Senator NICKLES. Thank you very much. In view of the time, we will have to ask some very quick and abbreviated questions.

Mr. Taylor, quickly, you stated your support for the amendment that I put in primarily to bring it up so individuals can comment both on TAPS and also some changes on ICC and endorse that amendment as such, and I was particularly interested in Mr. Barber's comments on that portion of the TAPS.

Would you state whether or not the ICC changes that were made, whether or not you feel those are necessary in that part of the amendment?

Mr. TAYLOR. Yes, we feel they are necessary. As I said earlier, we will be glad to discuss it in detail if you so desire.

Senator NICKLES. Not at this time; it may be that we would at another time You mentioned also your association would be in favor of the bill particularly with the amendment if it had the ICC changes and also had the TAPS changes.

If it did not have the TAPS changes, does that nullify or I know you have some——

Mr. TAYLOR. Well, the association voted in support of both of those amendments, and that is our position here today.

Senator NICKLES. OK. It may be Senator Murkowski might have a quick question.

Mr. Van Arsdall, one quick question to you—have the regulations that are on the books today, having to go through all the litigation, all the cases, the mountainous legal briefs and what not that have been filed in the last several years, has that really saved your association and the co-ops that you represent any money?

Mr. VAN ARSDALL. As I stated in the testimony, the existing regulatory structure is undesirable to say the least. It has not been effective in imposing the discipline on the marketplace that normal market forces would in a normal situation, but I guess the point I am making is don't throw these folks from the frying pan into the fire as a solution. Let's try to find a better way to do it.

Senator NICKLES. We are trying to fix it. If you come up with something better, we are very receptive to ideas as you might be aware, so if you have some staff, attorneys that are working on this, if they could come up with some ideas, they say well, they think it would be better, we are very receptive. We haven't seen that yet.

Mr. VAN ARSDALL. We would be pleased to work with you in that search, and we are in the process of doing that.

Senator NICKLES. I appreciate that. I notice that we have Mr. Roper who has arrived. We are under severe time constraints. As a matter of fact, this panel needs to be moved in about 3 minutes, and I know Senator Murkowski has a question, and before I turn to you, I think I will turn to Senator Murkowski. We may add you on to the next panel.

Senator MURKOWSKI. Thank you. I will try and be brief. Mr. Taylor, I wonder if you could provide for the record your representation on the Association of Oil Pipe Lines and in your address or remarks when I was out of the room, are you speaking individually for the position of the three major owners of TAPS?

Mr. Taylor. No. I am here on behalf of the chairman of the Association of Oil Pipe Lines which covers 95 operating pipeline companies.

Senator Murkowski. It would include Exxon, Arco, Sohio's interests in TAPS?

Mr. Taylor. That's right. They are members also.

Senator Murkowski. Are you speaking for the corporations and their position on regulation or deregulation of TAPS?

Mr. Taylor. That's right.

Senator Murkowski. You are speaking for those corporations individually?

Mr. Taylor. They are a part of the association.

Senator Murkowski. My question is, Are you speaking individually for the position of those three corporations that own TAPS?

Mr. Taylor. Only as an association, not individually.

Senator Murkowski. So you are not speaking individually. Have you contacted those three owners of TAPS for their position with regard to your testimony?

Mr. Taylor. I think I understand their position.

Senator Murkowski. That isn't the question, sir.

Mr. Taylor. Have I contacted them?

Senator Murkowski. Have you contacted them? In your testimony, is that the position of those three major owners of TAPS?

Mr. Taylor. Mr. Murkowski, those three owners, to the best of my knowledge, voted to go along also with the general membership last December to support the bill plus the amendments, and one of the amendments excluded TAPS.

Senator Murkowski. I don't think you have answered my question, but I think we have established it in the record. I would like to ask if the question of monopoly here as it applies to TAPS is in the best interests of our Nation as I think it is contained in the report by Mr. Dick Barber who asserts that TAPS is not a monopoly. I wonder if you would give us a definition of what a monopoly is, your interpretation?

Mr. Barber. I would define a monopoly as a situation in which a firm has a positjon such that it is able presently and prospectively to enjoy or charge prices or rates that would be termed monopoly profits, taking into effect all of the factors, market conditions, under which it functions.

Senator Murkowski. Are there any modes of transportation competitive with TAPS at this time?

Mr. Barber. Yes. There are modes that are competitive. The Geological Survey in fact concluded last year in a study of the Arctic oil situation that in regard not only to pipelines but on land, also certain marine pipelines, but also tanker transport in the Arctic as being, I use the word as being technically and economically efficient for the transportation of oil.

Senator Murkowski. I assume you are familiar with the experiment of Exxon with the Manhattan?

Mr. Barber. Yes, I am.

Senator Murkowski. And the cost associated with studies for—I am trying to rush this, but I think it is important, Mr. Chairman. I guess it is fair to say, though, it is questionable if currently there are any other modes of transportation that would be competitive with TAPS that would be likely because of the obvious economics to be built?

Mr. **Barber**. Well, I believe there are.

Senator **Murkowski**. Why doesn't somebody build them?

Mr. **Barber**. Because I believe that the present conditions demonstrate that TAPS is the most efficient alternative that is available to the various users of the oil. It is a cheap, efficient, safe means for transporting all the oil that is being produced on the North Slope, and getting it directly to the U.S. market.

Senator **Murkowski**. Let's assume the State wanted to sell its oil at wellhead. How would you suggest it be sold if it doesn't go through TAPS? That is one-eighth of the total oil that goes through that pipeline.

Mr. **Barber**. It has a one-eighth interest, and the State of Alaska can either ship that oil or——

Senator **Murkowski**. How? If it doesn't want to ship through the pipeline, how?

Mr. **Barber**. It can use the most efficient means of transportation available.

Senator **Murkowski**. What is that?

Mr. **Barber**. TAPS.

Senator **Murkowski**. My point is one of monopoly, sir, and I am asking if there is any other alternative to the State to ship its oil?

Mr. **Barber**. At the present time, no; prospectively, yes.

Senator **Murkowski**. Well, I would certainly question the prospectiveness of that.

Do you have any idea how long it would take to plan, finance, and construct another pipeline system or an alternate system to TAPS?

Mr. **Barber**. For the movement of Prudhoe Bay production?

Senator **Murkowski**. The expanded Prudhoe Bay production associated with the concept of monopoly.

Mr. **Barber**. I would not expect that such a line would be built to directly substitute for the TAPS facility, especially given the radical decline in output from the Prudhoe Bay in that it is shortly to begin, to commence. Cost for construction no doubt would exceed the cost of building the existing TAPS facility.

Senator **Murkowski**. And you would expect a new pipeline would have considerably higher cost due to high finance charges and inflation which has occurred since 1968?

Mr. **Barber**. Yes, the costs of all sorts; I would not expect there would be another one being built, although down stream clearly the expection of Government agencies is that as oil production commences at other locations in Alaska, some Federal, conceivably on State lands, that alternative systems of transportation other than TAPS, including new pipelines or marine systems, are likely.

Senator **Murkowski**. You indicated reference to the decline of oil through the TAPS as far as projected movement is concerned. I assume you are aware of the U.S. Geological Survey which reports a 95-percent probability for discovery of an additional 7 billion barrels of oil on or near the North Slope.

Moreover, the North Slope production decline will not compel a condition of excess capacity in the TAPS system. A critical factor in the magnitude of TAPS' operational capacity at any given point in time is the number and size of pump stations in active operation. It is possible that eight-owner companies might keep the pipeline running by decommissioning one or more pump stations when and if production declines start to occur precisely to keep TAPS' operational capacity in harmony with the flow from the field.

Mr. **Barber**. I am aware of all of that. I have taken that into account, but must point out to you, Senator, that there is a tremendous practical difference between reserves of oil being available some place in the ground and oil actually being produced and available for transportation.

Senator **Murkowski**. I would concur with that. I have one more question if I might, and I would ask that if there is a reduction in the movement of the product through the TAPS pipeline, would not that then be the time to consider deregulation?

Mr. **Barber**. No, because we are not going to reach that point in an economically efficient posture without taking action now. We are not dealing with exploration that can literally take place overnight. Exploration for oil in the North Slope and in Alaska generally is believed to take them 7 to 14 years, and be, of course, highly risky and uncertain of outcome. The result is that rates charged by the TAPS carriers now even without regulation are I am convinced on economic grounds going to be held at reasonable levels simply because it is in the interest of these carriers to encourage through their rates new exploration to produce the oil that they can transport in the 1990's, and after the turn of the century, and that is what powerful constraint, whatever supposed pricing power they might possess.

Senator **Murkowski**. Mr. Chairman, I thank you. I would like to ask for the record if the witness, Mr. Taylor, chairman of the Association of Oil Pipe Lines, would provide for the record officially the individual positions of the three major owners of TAPS with regard to deregulation?

Senator **Nickles**. Thank you, Senator, and gentlemen, we appreciate your cooperation and also solicit your quick response to our traditional request.

Our final panel that we have today, we have Robert Thomas, chairman of the board of MAPCO; Mr. Keith Bailey, who is president of Williams Pipe Line Co.; John Anderson, who is president of Farmland Industries; and Edwin Dryer, who is executive director of Independent Refiners Association of America; and John Roper, who is executive vice president of Koch.

Gentlemen, we thank you. We apologize very much for the necessity of running you through, but if we didn't, the panel wouldn't have been able to speak to us, and I would think you would have really been upset if you had traveled from as far as many of you have and not even have a chance to put your statements in the record and make some comments, so with that, I will begin with Mr. Bailey. Would you care to make some comments? We have 15 minutes. We have five persons on this panel, so that might give you an idea if your math is somewhat like mine of the time constraints we are in.

STATEMENT OF KEITH E. BAILEY, PRESIDENT, WILLIAMS PIPE LINE CO.

Mr. BAILEY. Than you, Mr. Chairman. I will make some very brief comments. I will try to avoid redundancy in that I echo the views that have been presented by the previous industry witnesses, and the views I expect to be presented by Mr. Thomas and Mr. Roper.

What I would like to focus on very briefly is the content of Mr. Anderson's statement to this committee, his written statement, which I did have a chance to glance through. I feel that his statement at best is extremely self-serving, and factually inaccurate, and at worst attempts to mislead this committee in the task it has before it.

Mr. Anderson seems quite prepared to accept the benefits of competition, and even in his statement acknowledges the fact that his company enjoys access to low-cost, efficient energy network. He is unwilling to acknowledge that it is competition that provides him these benefits. I guess perhaps he feels that Williams Pipe Line has restrained its rates solely out of good will toward his shippers or even in some masochistic way we enjoy returns on investment which are below industry norms.

I know for a fact that he doesn't believe the rates are a result of regulatory restraint because I have heard his witnesses and lawyers testify to that effect in hearings before both the ICC and the FERC. In the same hearings I have heard his idea of reasonable rate level. The fact that those so-called reasonable rates would literally bankrupt Williams Pipe Line is just one of the breaks of the game.

While he is unwilling to acknowledge the existence of competition, I sense no such reluctance on the part of his employees, MAPSO, and perhaps others to beat a path to his door to compete for the right to provide the pipeline transportation service for refinery feedstocks to Coffeyville Refinery. MAPCO's success in that competition gives lie both to the allegation that a new line cannot compete with an existing line and the statement that Coffeyville is served by a single pipeline.

I have several other comments that I could make. However, perhaps focusing on what I consider to be the most distressing part of his testimony, and that is the part that also is the farthest removed from reality, which is that he seems to dismiss exchanges as a competitive force. When required to furnish exchange data to Williams under the terms of a discovery request in Williams phase I hearings, it really came as no surprise to us that it literally took several boxes to contain the documents relating to that. The exchanges are real, and the explicit pipeline rate comparisons presented by Mr. Anderson in his written testimony are far removed from real opportunities available to shippers such as Farmland.

I think he is quite correct when he says exchanges do not move product. That is their purpose, and the effect is the shipper is able to serve markets without the necessity of moving the production to that market, and that represents one of the most extreme forms of competition for the pipeline transportation industry.

I will stop at this point and leave time for the other witnesses. I appreciate the opportunity to present my views.

[The prepared statement of Mr. Bailey follows:]

STATEMENT OF KEITH E. BAILEY

PRESIDENT

WILLIAMS PIPE LINE COMPANY

HEARINGS ON

S. 1626

DEPARTMENT OF ENERGY ORGANIZATION ACT AMENDMENTS OF 1981

MAY 21, 1982

COMMITTEE ON ENERGY AND NATURAL RESOURCES

SUBCOMMITTEE ON ENERGY REGULATION

UNITED STATES SENATE

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, I APPRECIATE THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY. WILLIAMS PIPE LINE HAS HAD THE UNHAPPY EXPERIENCE OF BEING EMBROILED IN THE CURRENT REGULATORY MORASS FOR THE PAST TEN YEARS. I FEEL OUR EXPERIENCE GIVES US A VERY SOUND BASIS FOR BEING IN THE FOREFRONT OF THOSE ADVOCATING DEREGULATION FOR THIS INDUSTRY. IN THE INTEREST OF TIME, AND WITH THE INDULGENCE OF THE COMMITTEE, I WILL SUPPLEMENT MY COMMENTS TODAY WITH A WRITTEN STATEMENT TO PROVIDE A COMPLETE RECORD AS TO OUR VIEWS ON THIS LEGISLATION.

OIL PIPELINE REGULATION HAD ITS GENESIS AT A TIME WHEN THE OIL INDUSTRY GENERALLY WAS IN ITS INFANCY AND A FEW LARGE COMPANIES DOMINATED THE MARKETPLACE. THE EXPLOSIVE GROWTH OF THIS INDUSTRY HAS, WITHOUT QUESTION, COMPLETELY ALTERED THE STRUCTURAL CHARACTERISTICS OF THAT MARKETPLACE AND I FEEL IT IS FAIR TO SAY THAT IF THERE WERE NO ECONOMIC REGULATION OF THIS INDUSTRY TODAY, YOU WOULD FIND FEW, IF ANY, ADVOCATES OF IMPOSITION OF SUCH REGULATION AND THOSE FEW ADVOCATES WOULD BE UNABLE TO MEET THE BURDEN OF PROOF WHICH IS INCUMBENT ON THOSE ADVOCATING CHANGE.

THAT, HOWEVER, IS NOT WHERE WE ARE TODAY AND IT IS THOSE OF US IN THE INDUSTRY WHO ARE THE ADVOCATES OF CHANGE. I AM QUITE CONFIDENT THAT THE RECORD WHICH WILL BE MADE IN THESE HEARINGS WILL MAKE THE CASE THAT ECONOMIC REGULATION IS NO LONGER REQUIRED FOR THIS INDUSTRY AND THAT, IN FACT, A CONTINUATION OF SUCH REGULATION CARRIES WITH IT THE POTENTIAL FOR SERIOUS HARM.

TODAY'S OIL PIPELINE INDUSTRY IS AN INDUSTRY THAT IS GENERALLY HEALTHY AND ONE WHICH HAS HISTORICALLY SERVED ITS CLIENTELE WELL. IN SPITE OF THIS, IT HAS PERIODICALLY BEEN SUBJECTED TO THE CRITICISM OF VARIOUS PARTIES WHICH HAVE ADVOCATED A VARIETY OF THEORIES AND THEN ATTEMPTED TO FIND FACTS TO SUPPORT THEM.

AFTER HAVING HAD THE OPPORTUNITY TO LISTEN TO THE VARIOUS GOVERNMENT WITNESSES IN THE HEARINGS TODAY AND IN THE HOUSE EARLIER THIS MONTH, I MUST ADMIT THAT I FEEL LIKE BARRY SWITZER, THE UNIVERSITY OF OKLAHOMA'S HEAD FOOTBALL COACH, MUST FEEL AS HE PREPARES TO ADDRESS A MONDAY LUNCHEON OF THE BOOSTER CLUB FOLLOWING SATURDAY'S 3-0 VICTORY OVER KANSAS STATE. HE IS PLEASED TO REPORT A VICTORY, BUT HE FEELS IT STILL LEFT SOMETHING TO BE DESIRED.

OBVIOUSLY, I AM ENCOURAGED, ALONG WITH MY COLLEAGUES IN THE INDUSTRY, BY THE FACT THAT THE GOVERNMENT WITNESSES, WITHOUT EXCEPTION, SUPPORTED THE UNDERLYING PRINCIPLES WHICH FORM THE FOUNDATION FOR THIS PROPOSED LEGISLATION; NAMELY, THAT THIS INDUSTRY IS ONE WHICH SHOULD BE DEREGULATED AND THAT THE TIME IS RIPE NOW FOR SUCH DEREGULATION. WHAT WE ARE NOT AS ENCOURAGED BY IS THE OBVIOUS RELUCTANCE ON THE PART OF AT LEAST SOME OF THE GOVERNMENT WITNESSES TO FULLY EMBRACE THE CONCEPT BECAUSE OF WHAT BEST MIGHT BE DESCRIBED AS LINGERING CONCERNS OVER POTENTIAL PROBLEMS WHICH MAY OR MAY NOT EXIST.

I SUPPOSE THIS IS NOT SURPRISING WHEN ONE CONSIDERS THE HISTORY OF OUR INDUSTRY'S INVOLVEMENT WITH THESE VARIOUS AGENCIES AND THE DEEPLY EMBEDDED PRECONCEPTIONS WHICH MUST BE OVERCOME BEFORE THEIR UNQUALIFIED

SUPPORT OF THIS LEGISLATION COULD BE EXPECTED. MR. COBURN FROM THE D.O.E., IN RESPONDING TO A QUESTION IN THE HOUSE HEARINGS REGARDING A 1979 GAO REPORT, PERHAPS BEST CHARACTERIZED OUR DILEMMA. HE POINTED OUT THAT THE REPORT WAS A RESULT OF A STUDY WHICH HAD AS ITS PREDICATE THE ASSUMPTION THAT OIL PIPELINES WERE IN FACT NATURAL MONOPOLIES AND THAT IT MADE NO EFFORT TO EXAMINE THE VALIDITY OF THAT PRESUMPTION. WHAT IS NECESSARY IN CONSIDERING THIS LEGISLATION IS AN EXAMINATION OF ALL OF THE THEORIES ADVANCED ABOUT THE FUNDAMENTAL CHARACTER OF OUR INDUSTRY IN THE CONTEXT OF THE REAL WORLD DATA AVAILABLE BY WHICH TO TEST THOSE THEORIES.

OUR INDUSTRY HAS BEEN CRITICIZED FOR REALIZING EXCESSIVE PROFITS; HOWEVER, AN EXAMINATION OF THIS ISSUE REVEALS ACTUAL PROFIT LEVELS HAVE BEEN QUITE ORDINARY, NOT AT ALL OUT OF LINE WITH THOSE REALIZED BY INDUSTRY GENERALLY, AND IF ANYTHING SOMEWHAT LOW CONSIDERING THE RISK CHARACTERISTICS OF THE INDUSTRY.

WE HAVE BEEN ACCUSED OF DELIBERATELY UNDERSIZING OUR SYSTEMS IN A MACHAVELLIAN ATTEMPT TO EXTRACT MONOPOLY PROFITS. EXAMINATION OF THE FACTS HAVE SHOWN THIS ACCUSATION TO BE TOTALLY WITHOUT MERIT.

CERTAIN LINES HAVE BEEN SUBJECTED TO INTENSE ANTI-TRUST SCRUTINY AND DIVESTITURE OF OIL PIPELINES HAS BEEN A RALLYING CRY FOR MANY CRITICS OF THE ENERGY INDUSTRY. AGAIN, YEARS OF EFFORT ON THE PART OF INDUSTRY CRITICS HAVE FAILED TO PROVIDE THE BASIS TO SUPPORT EVEN A SINGLE CASE.

MY PURPOSE IN RECITING THIS LITANY IS SIMPLY TO MAKE THE POINT THAT WHILE THE FEW CRITICS OF OUR INDUSTRY HAVE BEEN SUCCESSFUL IN CREATING A SMOKE CLOUD, THEY HAVE CONSISTENTLY AND UNEQUIVOCALLY FAILED TO PRODUCE ANY EVIDENCE OF FIRE. THERE IS A SIMPLE REASON FOR THAT. THE OIL PIPELINE INDUSTRY THAT EXISTS TODAY IS ONE WHICH HAS BEEN SHAPED BY INTENSE COMPETITIVE PRESSURES. ITS MANAGEMENT DECISIONS ARE MADE IN THAT ENVIRONMENT AND ITS DAY TO DAY OPERATIONS ARE CONDUCTED IN A WAY THAT REFLECTS THAT REALITY. I WANT TO EMPHASIZE THE FACT THAT THIS COMMITTEE SHOULD DEAL IN MARKETPLACE REALITIES IN CONSIDERING THIS LEGISLATION.

DURING THE COURSE OF YOUR DELIBERATIONS, YOU WILL UNDOUBTEDLY HEAR TEXT BOOK THEORIES AND CLASSROOM STYLE SOLUTIONS PROPOSED BY THOSE FEW DIEHARD CRITICS OF THE INDUSTRY AND THIS IS UNDERSTANDABLE. IT IS UNDERSTANDABLE BECAUSE IF THEIR THEORIES HAVE ANY MERIT, WHICH IS QUESTIONABLE AT BEST, IT IS ONLY AS A THEORY IN THE CLASSROOM. THEY CANNOT MEET THE TEST OF REAL WORLD ANALYSIS.

YOU HAVE ALREADY HEARD A VARIATION ON THE CENTRAL THEME OF SOME OF THOSE THEORIES AS THE ISSUE OF POTENTIAL REREGULATION OF CERTAIN CARRIERS HAS BEEN DISCUSSED. AGAIN, LET ME EMPHASIZE THAT THE ISSUE OF THE NEED TO INCLUDE A REREGULATION PROVISION IN THE LEGISLATION HAS BEEN COUCHED IN TERMS OF LINGERING CONCERNS OVER POTENTIAL PROBLEMS WHICH MAY OR MAY NOT EXIST.

THE DEPARTMENTS OF ENERGY AND JUSTICE AND THE FERC HAVE ALL EMBRACED THE CONCEPT OF A REREGULATION PROVISION YET NOT ONE OF THESE AGENCIES HAVE SUGGESTED ANY PARTICULAR CARRIER AS BEING AN OBJECT OF

THEIR CONCERN, NOR HAVE THEY ARTICULATED THEIR CONCERN IN SUFFICIENT DETAIL TO ALLOW THE INDUSTRY TO RESPOND TO IT.

FORTUNATELY, THIS COMMITTEE AND MEMBERS OF CONGRESS ARE LARGELY FREE FROM THE NECESSITY OF OVERCOMING PRECONCEPTIONS REGARDING THIS INDUSTRY AND THEREFORE CAN MAKE OBJECTIVE JUDGMENTS REGARDING THE MERITS OF THIS LEGISLATION. I AM CONFIDENT THAT AS A RESULT OF THAT GREATER OBJECTIVITY, YOU WILL JUDGE THE FACTS AS SUPPORTING COMPLETE AND UNEQUIVOCAL ECONOMIC DEREGULATION.

LET ME NOW MOVE ON TO SOME OF THE FACTS YOU WILL NEED IN MAKING THAT JUDGMENT.

THE ICC, WHICH HAD REGULATORY RESPONSIBILITY PRIOR TO THE CREATION OF THE FERC, HAS BEEN SAID TO HAVE EXERCISED LITTLE, IF ANY, REGULATORY CONTROL OVER THE INDUSTRY. OBVIOUSLY, WHETHER THIS IS INTERPRETED AS GOOD OR BAD IS A MATTER OF ONE'S PERSPECTIVE. IN GENERAL, THE ICC DID EXERCISE A LAISSEZ-FAIRE TYPE OF REGULATORY OVERSIGHT CHOOSING TO INTERVENE ONLY WHEN ASKED TO DO SO BY A PARTY AT INTEREST. THE PERFORMANCE OF THE INDUSTRY UNDER THIS STYLE OF REGULATION WOULD BEAR OUT THE FACT THAT THIS WAS ENTIRELY APPROPRIATE.

ONE QUICKLY SENSES, HOWEVER, THAT THE CRITICS OF THE INDUSTRY AND THE ICC PREFER TO FOCUS THEIR ATTENTION, NOT ON THE ACTUAL MARKETPLACE REAL WORLD RESULTS OF THE INDUSTRY PERFORMANCE, BUT RATHER ON THE ESTHETICS OF PARTICULAR REGULATORY THEORIES OR METHODOLOGIES. TWO ECONOMISTS WHO IN THE ENERGY LAW JOURNAL RECENTLY ANALYZED THE CURRENT STATE

OF OIL PIPELINE REGULATION PERHAPS BEST CAPTURE THE THEORIST'S DIFFICULTY WITH DEALING IN THE REAL WORLD. PETER NAVARRO AND THOMAS STAUFFER, BOTH HARVARD ECONOMISTS, MAKE THE FOLLOWING OBSERVATION:

> "IRONICALLY, WHILE ITS GENESIS MUST BE SUSPECT, WE SHALL SEE LATER THAT IT FUNCTIONED UNEXPECTEDLY WELL. ITS ANALOG IS THE CAMEL - CRUELLY DESIGNATED AS A "HORSE DESIGNED BY COMMITTEE"; LIKE THE CAMEL, THE ICC FORMULA ACTUALLY PROVES REASONABLY EFFICIENT UNDER A BROAD SET OF CONDITIONS."

IN FAIRNESS, I WOULD POINT OUT THAT MR. NAVARRO AND MR. STAUFFER PROCEED TO GO ON AND BUILD THEIR OWN VERSION OF A BETTER REGULATORY MOUSE TRAP. THEY DO, HOWEVER, ACKNOWLEDGE THE EFFECTIVE HISTORY OF THE ICC APPROACH TO REGULATION WHICH ENCOMPASSES ALL ASPECTS OF REGULATION INCLUDING THE ADMINISTRATION OF THE REGULATORY PROCESS.

A FAIR QUESTION AT THIS POINT MIGHT BE, "WHY IS THIS LEGISLATION NEEDED?" THIS INDUSTRY IS GENERALLY HEALTHY, IT HAS HISTORICALLY EARNED REASONABLE RETURNS, IT HAS SERVED AN IMPORTANT ENERGY TRANSPORTATION ROLE WELL AND ON A TIMELY BASIS, AND IT HAS DONE SO WHILE BEING SUBJECT TO THE SAME BASIC LAWS THAT ARE NOW BEING CONSIDERED FOR CHANGE IN THESE PROCEEDINGS.

THE ANSWER IS SIMPLE. THE PAST IN THIS CASE IS NOT A GOOD PREDICATE FOR THE FUTURE. WHEN JURISDICTION FOR OIL PIPELINE REGULATION PASSED FROM THE ICC TO THE FERC IN THE FALL OF 1977, THE ENTIRE REGULATORY CLIMATE CHANGED. THE FERC HAS PROVEN TO BE AN AGENCY WITH A REGULATORY

STYLE WHICH IS THE DIAMETRIC OPPOSITE OF THE ICC'S LIGHT-HANDED APPROACH. IT HAS CREATED A SIGNIFICANT BACKLOAD OF UNRESOLVED RATE CASES BY SUSPENDING THOUSANDS OF RATE FILINGS ON ITS OWN MOTION. MORE IMPORTANTLY, IN DOING SO IT HAS HEIGHTENED THE REGULATORY UNCERTAINTY FACING THIS INDUSTRY, DAMPENED THE INCENTIVES TO INVEST IN PIPELINE ASSETS, AND CREATED AN ADMINISTRATIVE MORASS WHICH WILL TAKE YEARS AND MILLIONS OF DOLLARS OF REGULATORY AND LITIGATIVE EXPENSE TO RESOLVE. CHAIRMAN BUTLER HIMSELF HAS EXPRESSED SERIOUS CONCERNS REGARDING THE GREAT DIFFICULTY FACED BY THE COMMISSION IN ARRIVING AT WHAT THEY CONSIDER TO BE APPROPRIATE REGULATION UNDER THE EXISTING STATUTE.

IF ONE CAN MAKE THE REASONABLE ASSUMPTION THAT LIFE UNDER THE FERC IN THE FUTURE WILL BE SIMILAR TO THAT WHICH HAS EXISTED DURING THE PAST FOUR PLUS YEARS, THERE IS NO QUESTION IN MY MIND THAT THIS SPELLS DISASTER FOR THIS INDUSTRY. OBVIOUSLY, THERE COULD BE AN EBB AND FLOW IN REGULATORY ZEAL AS ADMINISTRATIONS AND COMMISSIONERS COME AND GO, BUT I FEEL THERE IS LITTLE QUESTION THAT OVER TIME, YOU WOULD SEE THIS INDUSTRY TRANSFORMED FROM ONE WHICH HAS BEEN EFFICIENT, EFFECTIVE, AND WILLING TO TAKE INVESTMENT RISKS, TO ONE WHICH IS MUCH LESS EFFICIENT OR EFFECTIVE AND WHICH IS A HIGHLY RISK ADVERSE. IT IS ALMOST AN ARTICLE OF FAITH THAT COST OF SERVICE STYLE REGULATORS OF WHATEVER POLITICAL PERSUASION WITH THEIR 20/20 HINDSIGHT HAVE LITTLE TOLERANCE FOR "WINNERS" EVEN WHEN THE COMPETITIVE MARKETPLACE PREVENTS THEM FROM PREVENTING OR EVEN HELPING "LOSERS".

IN PRACTICAL TERMS, WHAT DOES THIS MEAN? IT MEANS SOME COMPANIES MAY ELECT TO CEASE MAKING CAPITAL ADDITIONS AND MAY, IN FACT, ELECT TO GET OUT OF THE INDUSTRY. IT MEANS COMPANIES WILL ALLOW LATENT DEMAND TO BUILD TO MUCH HIGHER LEVELS BEFORE MAKING INVESTMENTS AND THEN ONLY MAKE THE ABSOLUTE MINIMUM INVESTMENT TO SERVE THAT SPECIFIC DEMAND AND NOT ASSUME THE RISK ASSOCIATED WITH MAKING PROVISIONS FOR POTENTIAL GROWTH. ALL THIS WILL OCCUR AT THE SAME TIME THE BUSINESS ENVIRONMENT WILL BE CRYING OUT FOR THE INDUSTRY TO ASSUME AN EVEN HIGHER RISK PROFILE AS EXPLORATION MOVES TO FRONTIER AREAS AND THE DISRUPTION CAUSED IN LOGISTICAL PATTERNS BY THE RAPIDLY SHIFTING REFINING MARKET CONTINUES. IN OTHER WORDS, A CONTINUATION OF THE CURRENT STATUS QUO IS ANYTHING BUT NEUTRAL; IT IS VERY MUCH COUNTER TO OUR NATIONAL INTEREST.

I WANT TO LEAVE THE NEGATIVE ASPECTS OF THE DISCUSSION FOR A MOMENT, HOWEVER, TO FOCUS ON THE AFFIRMATIVE REASONS AS TO WHY IT IS ENTIRELY APPROPRIATE TO SUPPORT THIS LEGISLATION.

WILLIAMS PIPE LINE AND ITS OPERATING ENVIRONMENT IS A GOOD CASE STUDY OF THIS INDUSTRY AND IT IS THE AREA I WILL FOCUS THE BALANCE OF MY REMARKS ON TODAY.

YOU CAN SEE FROM THE MAPS THAT HAVE BEEN DISTRIBUTED TO YOU THAT THE AREA SERVED BY WILLIAMS IS INTERLACED WITH PIPELINES, REFINING CENTERS, AND WATERWAYS. WILLIAMS IS SUBJECT TO COMPETITION FROM THESE OTHER LINES, FROM REFINER SALES AND EXCHANGES, AND FROM RAIL, TRUCK AND BARGE MOVEMENTS OF THE VARIOUS COMMODITIES IT TRANSPORTS.

THIS COMPETITION IS PERVASIVE AND IT REQUIRES THAT WE ADAPT, TO WHAT IS A CONTINUALLY SHIFTING ENVIRONMENT, IN ORDER TO MAINTAIN A COMPETITIVE POSITION. BECAUSE OF THE COMPLEX DYNAMICS THAT EXIST, THE COMPETITION FACED BY OUR COMPANY AND OUR INDUSTRY DEFIES SIMPLE EXPLANATIONS.

CRITICS OF THE INDUSTRY WOULD HAVE YOU BELIEVE THAT COMPETITION CAN BE DEFINED BY LOOKING AT A NARROW CORRIDOR BETWEEN TWO POINTS ON THE MAP AND COMPARING PUBLISHED PIPELINE TARIFFS BETWEEN THOSE POINTS. THIS IS THE GROSSEST FORM OF OVER-SIMPLIFICATION AND IS FAR REMOVED FROM THE REALITY OF THE MARKETPLACE.

FIRST, AS IS TRUE WITH ANY PRODUCT COMPETING FOR CONSUMER DEMAND, PIPELINE TRANSPORTATION SERVICES ARE NOT VALUED IN A SINGLE DIMENSION BY THE PROSPECTIVE CONSUMER. IN ADDITION TO PRICE, BOTH THE QUALITY AND RANGE OF SERVICES OFFERED BY THE PIPELINE ENTER INTO THE ULTIMATE SHIPPER DECISION. THE CHALLENGE FACING PIPELINE MANAGEMENT IS TO FIND THE COMBINATION OF PRICE, SERVICE, AND QUALITY THAT BEST FITS THE NEEDS OF THE MAXIMUM NUMBER OF SHIPPERS. IT IS ONLY THROUGH THIS TYPE OF EFFORT THAT MAXIMUM EARNINGS POTENTIALS CAN BE REALIZED.

IN WILLIAMS' OWN CASE, WE FEEL WE MUST ATTEMPT TO POSITION OURSELVES AT THE HIGH END OF THE SERVICE CURVE. IT IS THIS STRATEGY THAT WE FEEL BEST MEETS THE NEEDS OF OUR SHIPPERS. THIS STRATEGY ALSO ALLOWS US, AS AN INDEPENDENT PIPELINE WHICH EXERCISES NO CONTROL OVER ANY OF ITS VOLUMES, TO SUCCESSFULLY COMPETE WITH THE OTHER PRIVATE, SHIPPER-OWNED, AND INDEPENDENT LINES IN OUR AREA AS WELL AS THE VARIETY OF OTHER TRANSPORTATION MODES AND ALTERNATIVES TO TRANSPORTATION.

OUR ORGANIZATIONAL STRUCTURE REFLECTS THAT SERVICE BASED ORIENTATION. WE HAVE A MARKETING ORGANIZATION HEADED BY ONE OF THE COMPANY'S THREE VICE PRESIDENTS, AS WELL AS A CUSTOMER SERVICE GROUP WHOSE ONLY ROLE IS TO PROVIDE DAY TO DAY ASSISTANCE TO OUR SHIPPERS. THIS IS HARDLY AN ORGANIZATIONAL STRUCTURE THAT SUGGESTS AN ATTITUDE OF INDIFFERENCE TO OUR SHIPPERS' NEEDS.

THERE ARE OTHER ASPECTS OF WILLIAMS' STEWARDSHIP OF THIS COMPANY THAT ALSO REFLECT THE COMPETITIVE PRESSURES FACING US. AS COST PRESSURES HAVE FORCED US TO INCREASE TARIFF LEVELS, WE HAVE HAD TO DEVELOP COMPUTER PROGRAMS WHICH ANALYZE OUR COMPETITIVE POSITION ON A COUNTY BY COUNTY BASIS. ANY TARIFF CHANGE CREATES A RISK OF BUSINESS LOSS BECAUSE IT CHANGES THE COMPETITIVE DYNAMIC THAT CONTROLLED BUSINESS LEVELS PRIOR TO THAT CHANGE. AS A RESULT, TARIFF INCREASES ARE THE LAST AVENUE EXPLORED BY MANAGEMENT IN OUR EFFORTS TO ACHIEVE A REASONABLE RETURN FOR OUR STOCKHOLDERS.

I HAVE ATTACHED A GRAPH (EXHIBIT I) WHICH PLOTS THE CPI, OUR AVERAGE TRANSPORTATION REVENUE PER BARREL, AND OUR AVERAGE OPERATING EXPENSE PER BARREL FOR THE PERIOD FROM 1966 WHEN WILLIAMS ACQUIRED THE SYSTEM TO 1981. FROM THIS IT IS CLEAR THAT OUR REVENUES HAVE ONLY GONE UP IN PROPORTION WITH OUR EXPENSES AND THAT BOTH HAVE RISEN AT A RATE WHICH IS ONLY THREE-FOURTHS OF THE RATE OF INFLATION AS MEASURED BY THE CPI. IT SEEMS OBVIOUS TO ME THAT OUR DEMONSTRATED ABILITY TO ONLY RAISE TARIFF

LEVELS IN LINE WITH ACTUAL COST INCREASES AND OUR NEED TO CONSTRAIN THOSE COST INCREASES TO LESS THAN THE GENERAL RATE OF INFLATION ARE NOT SUGGESTIVE OF ANY LEVEL OF MONOPOLY POWER OVER OUR SHIPPERS. RATHER, IT CLEARLY DEMONSTRATES THE REAL WORLD INFLUENCE OF INTENSE COMPETITION.

A SECOND GRAPH (EXHIBIT II) WHICH FOCUSES ON THE DECADE OF THE SEVENTIES EVEN MORE CLEARLY DEMONSTRATES THESE REALITIES. THIS IS A PERIOD CHARACTERIZED BY VERY HIGH INFLATION, PARTICULARLY IN ENERGY COSTS WHICH ARE OUR SINGLE LARGEST EXPENSE. WILLIAMS SOUGHT ITS FIRST TARIFF INCREASE IN 1970 AND PERIODICALLY INCREASED TARIFFS OVER THE DECADE. AVERAGE TARIFF REVENUE DURING THE PERIOD GREW AT A 5.6% COMPOUND GROWTH RATE COMPARED TO A CPI GROWTH RATE OF 8.4%. BECAUSE ENERGY COSTS GREW AT A 19.4% COMPOUND GROWTH RATE DURING THE PERIOD, WE WERE ONLY ABLE TO CONTROL OPERATING EXPENSE INCREASES TO 93% OF THE GENERAL RATE OF INFLATION. EVEN WITH THIS RATE OF COST INCREASE, COMPETITIVE FORCES COMBINED TO CONSTRAIN OUR AVERAGE TARIFF INCREASES TO 75% OF THE GENERAL RATE OF INFLATION AND 80% OF OUR RATE OF COST INCREASES. THIS OBVIOUS INABILITY TO HAVE TARIFFS KEEP PACE WITH COSTS HARDLY SUGGESTS MONOPOLY POWER.

BECAUSE OF THESE COMPETITIVE REALITIES, THE AVENUES WE EXPLORE FIRST IN OUR SEARCH FOR EARNINGS GROWTH OPPORTUNITIES ARE THE SEEKING OF NEW MARKETS, COST REDUCTIONS AND PRODUCTIVITY GAINS.

SINCE 1966, WILLIAMS HAS SPENT $183 MM IN EXPANDING THE SYSTEM AND THE SERVICES IT OFFERS. WE HAVE PIONEERED THE MOVEMENT OF LIQUID NITROGEN FERTILIZER SOLUTIONS BY PIPELINE AS WELL AS THE BATCHING OF CRUDE OIL AND REFINED PRODUCTS IN THE SAME LINE. WE WERE AMONG THE LEADERS IN OFFERING GASOHOL AT OUR TERMINALS AND CONTINUE TO EXPERIMENT IN THE MOVEMENT OF COMMODITIES WHICH WOULD BE NEW TO CROSS-COUNTRY PIPELINES, SUCH AS ALCOHOL AND VARIOUS CHEMICAL AND REFINERY FEEDSTOCKS. WE HAVE PUT IN PLACE SOPHISTICATED COMPUTER AND TELECOMMUNICATIONS EQUIPMENT WHICH PROVIDE OUR SHIPPERS THE STATE OF THE ART IN DATA COLLECTION AND INVENTORY CONTROL.

ONE ASPECT OF THIS INVESTMENT HISTORY IS OF PARTICULAR INTEREST AND IS WORTH EXAMINING IN A LITTLE MORE DETAIL. AS YOU CAN SEE, WILLIAMS IS DIRECTLY CONNECTED TO A NUMBER OF REFINERIES. OUR BASIC REFINED PRODUCTS OPERATION TAKES PRODUCT FROM THESE REFINERIES ALONG WITH OTHER SOURCES AND DELIVERS THAT PRODUCT THROUGH TRUCK LOADING TERMINALS. THE DEMAND AT THOSE LOADING TERMINALS IS DETERMINED IN LARGE PART BY THEIR COMPETITIVE REACH IN RELATION TO OTHER SOURCES IN THE AREA. WILLIAMS HAS BEEN CALLED ON BY THESE REFINERS TO PERIODICALLY EXPAND ITS CAPACITY TO LIFT PRODUCT FROM THEIR PARTICULAR REFINERY. WILLIAMS HAS CONSISTENTLY DONE SO EVEN THOUGH AT TIMES WE WERE CONVINCED THAT THE REFINER WAS MISJUDGING THEIR REQUIREMENTS. THE OBVIOUS QUESTION THEN IS WHY MAKE THAT TYPE OF INVESTMENT. THE EQUALLY OBVIOUS ANSWER IS TO PRESERVE OUR EXISTING LEVEL OF BUSINESS. THERE IS, AS I'M SURE YOU BY NOW KNOW, COMPLETE FREEDOM OF ENTRY AND EXIT IN THE OIL PIPELINE BUSINESS. IF A REFINER'S OWN

PROJECTIONS INDICATE A REQUIREMENT FOR LIFTING CAPACITY FROM THEIR REFINERY AND IF WILLIAMS FAILS TO EXPAND TO MEET THAT DEMAND, THE REFINER WILL UNDOUBTEDLY DO SO HIMSELF. IF THAT HAPPENS, THEY WILL CONSTRUCT FACILITIES TO CAPTURE ALL EXISTING BUSINESS AS WELL AS THE EXPECTED GROWTH AND WILLIAMS WILL BE LEFT WITH AN IDLE LINE WHICH HAS LITTLE OR NO ECONOMIC VALUE. IN THAT SENSE, WE ARE TRULY CAPTIVE TO THE DESIRES OF OUR REFINER-SHIPPERS.

THE ARGUMENT MIGHT BE ADVANCED THAT IT IS HARDLY REALISTIC TO ASSUME A REFINER WOULD DUPLICATE THE WILLIAMS SYSTEM IN ORDER TO DISTRIBUTE THEIR PRODUCTS. AGAIN, THE ANSWER IS SIMPLE IN THAT THEY WOULD NOT HAVE TO DUPLICATE WILLIAMS' PHYSICAL SYSTEM IN ORDER TO EFFECTIVELY ACHIEVE THE DISTRIBUTION POTENTIAL IT OFFERS. EVEN THOSE REFINERS WHICH ARE LOCATED IN RURAL AREAS ARE A FAIRLY SHORT DISTANCE FROM MAJOR METROPOLITAN AREAS. SIMPLY BY EXTENDING TO THOSE METROPOLITAN AREAS AND ENTERING INTO PRODUCT EXCHANGES WITH OTHER REFINERS, THEY CAN ACHIEVE THE EFFECTIVE DISTRIBUTION PROVIDED BY THE WILLIAMS SYSTEM. YOU CAN SEE FROM THIS, THE BALANCE OF MARKET POWER CLEARLY LIES NOT WITH THE PIPELINE BUT WITH THE SHIPPERS AND REFINERS AND THAT IS A VERY EFFECTIVE REAL WORLD COMPETITIVE CONSTRAINT ON OUR BUSINESS. I HAPPEN TO AGREE COMPLETELY WITH THE D.O.E. STATEMENT THAT ENTRY BARRIERS TO THIS INDUSTRY ARE RELATIVELY LOW AND THAT POTENTIAL ENTRY IS A STRONG COMPETITIVE FORCE.

IN THE AREA OF OPERATING EXPENSES, WE HAVE ALSO BEEN VERY SUCCESSFUL IN OUR EFFORTS. FROM A WORK FORCE OF 827 PEOPLE IN 1966 WE HAVE REDUCED COMPLEMENT TO A LEVEL OF 679 BY YEAR END 1981. AT THE SAME TIME WE WERE SUBSTANTIALLY EXPANDING SERVICE LEVELS AND THE GEOGRAPHIC SCOPE OF OUR OPERATION.

OBVIOUSLY, I COULD CONTINUE TO CITE EXAMPLE AFTER EXAMPLE OF THE COMPETITIVE NATURE OF OUR INDUSTRY AND OF WILLIAMS' OWN OPERATING ENVIRONMENT. TIME DOES NOT PERMIT THAT, NOR DOES SIMPLE BUSINESS PRUDENCE ALLOW ME TO DISCUSS MORE SPECIFIC DETAILS ON A PUBLIC RECORD WHICH IS READILY AVAILABLE TO MY COMPETITORS IN THE MARKETPLACE. WHAT I HOPE MY TESTIMONY WILL DO IS PROVIDE YOU THE REAL WORLD RESULTS BY WHICH TO JUDGE THIS INDUSTRY. I THINK YOU WILL AGREE WITH ME THAT THOSE RESULTS REFLECT THE EFFECTIVE WORKINGS OF THE COMPETITIVE MARKETPLACE AND THAT THIS INDUSTRY'S VITALITY AND THE NATION'S BEST INTERESTS WILL BOTH BE SERVED BY PASSAGE OF THE PROPOSED LEGISLATION WITHOUT THE NEED FOR SOME REREGULATION PROVISION.

I THANK YOU FOR YOUR TIME AND ATTENTION AND WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MIGHT HAVE.

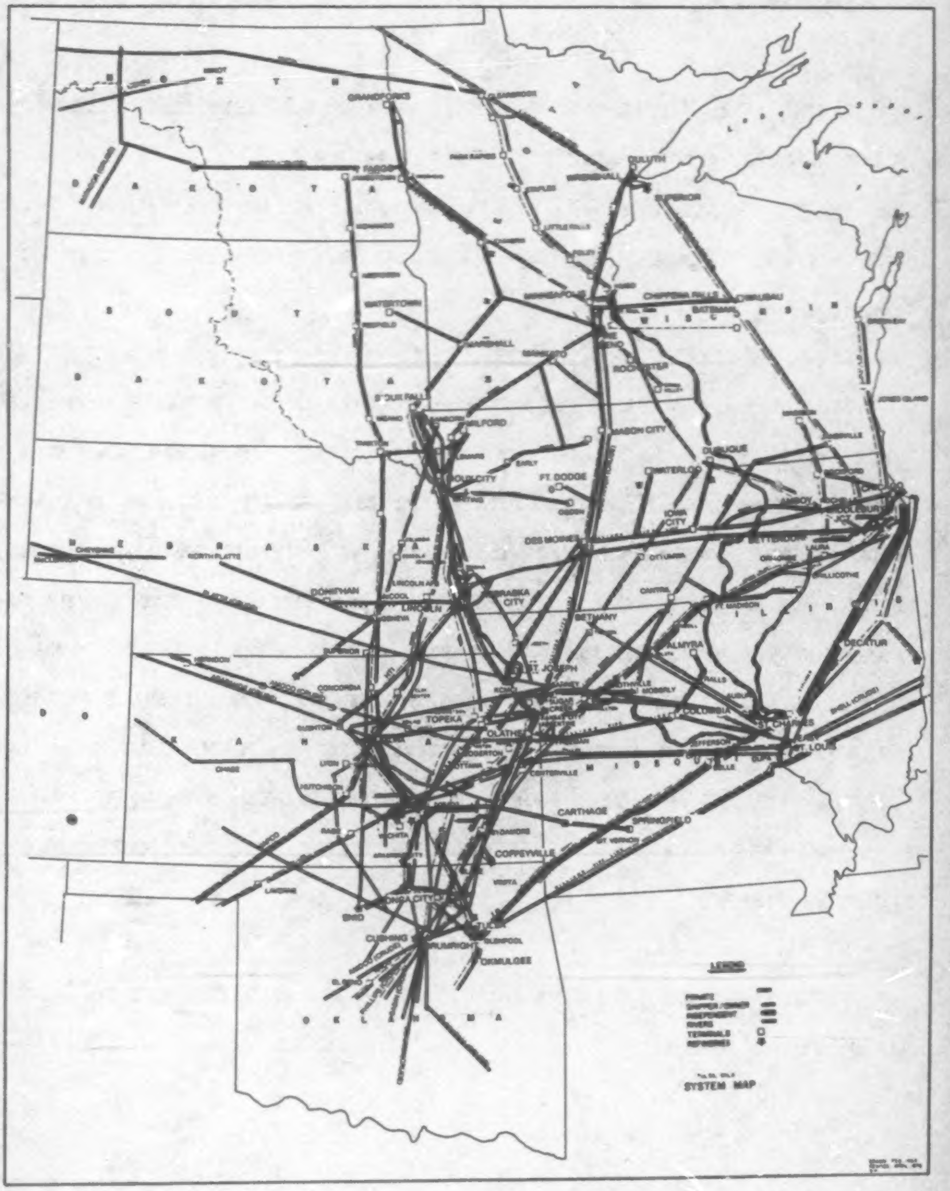

GRAND FORKS
FARGO
DULUTH
SUPERIOR
MINNEAPOLIS
CHIPPEWA FALLS
WAUSAU
WISCONSIN
WATERTOWN
MARSHALL
MANKATO
ROCHESTER
SIOUX FALLS
MILFORD
MASON CITY
DUBUQUE
WATERLOO
SIOUX CITY
FT. DODGE
IOWA CITY
DES MOINES
BETTENDORF
AMBOY
JOLIET
NORTH PLATTE
DONIPHAN
LINCOLN
NEBRASKA CITY
BETHANY
ST. JOSEPH
PALMYRA
DECATUR
TOPEKA
OLATHE
COLUMBIA
ST. CHARLES
ST. LOUIS
MISSOURI
CARTHAGE
SPRINGFIELD
COFFEYVILLE
ENID
PONCA CITY
TULSA
CUSHING
DRUMRIGHT
GLENPOOL
OKMULGEE
OKLAHOMA
LEGEND
PRIVATE
SHIPPER/OWNER
INDEPENDENT
RIVERS
TERMINALS
REFINERIES
SYSTEM MAP

EXHIBIT 1

COMPARISON OF WPL REVENUES AND EXPENSES WITH NATIONAL INFLATION

(1966 = 1.0)

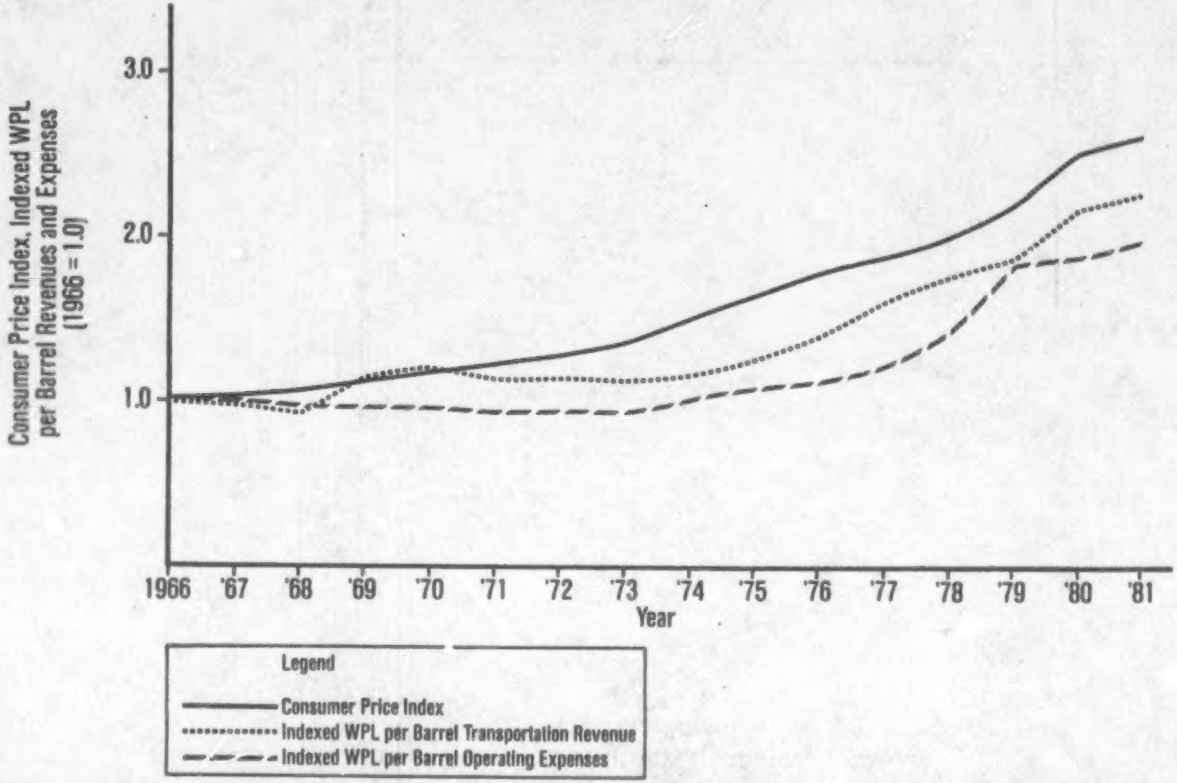
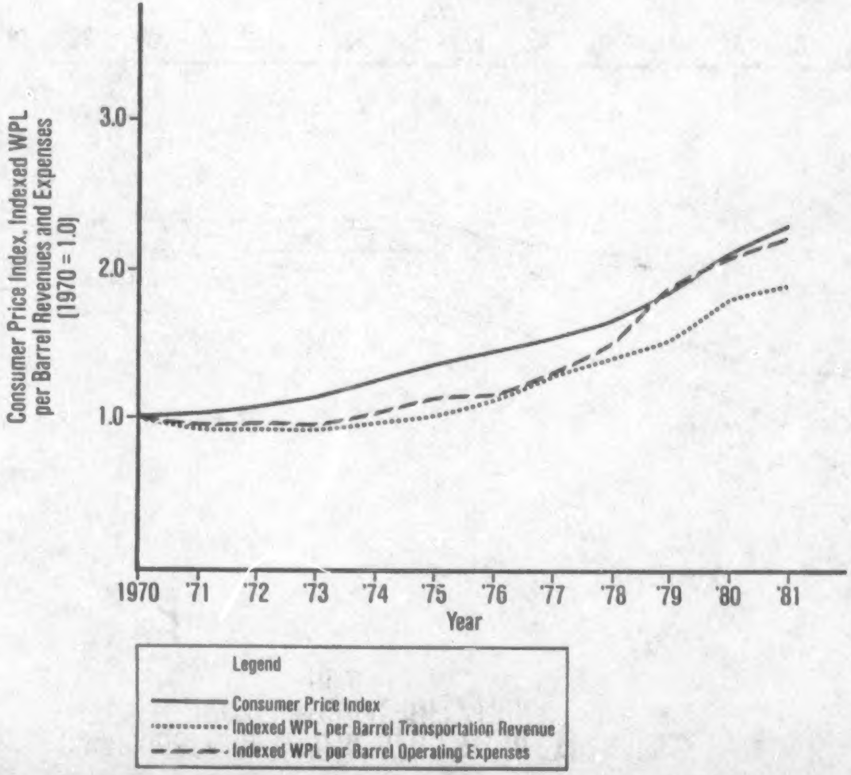


EXHIBIT 2

COMPARISON OF WPL REVENUES AND EXPENSES WITH NATIONAL INFLATION

(1970 = 1.0)



Senator NICKLES. Thank you. Mr. Dryer?

STATEMENT OF EDWIN JASON DRYER, EXECUTIVE SECRETARY AND GENERAL COUNSEL, INDEPENDENT REFINERS ASSOCIATION OF AMERICA

Mr. DRYER. Mr. Chairman, my prepared statement, I would like to describe briefly the background for our prepared statement in that we represent a group of 20 independent refiners in various parts of the country and in all size ranges. A number of them are partial owners of pipelines, and yet in their capacity as refiners they have endorsed a concept that we should oppose deregulation.

In our testimony we raised five questions which we think the committee should address. The first is whether pipelines have monopoly characteristics, and it appears from the earlier testimony that there is admission that in some instances they do have monopoly characteristics, certainly where there are a number of places where there are no duplication from point to point services.

Another point that disturbs us is, to which we put the question will antidiscrimination provisions prevent abuse? We can see an empty promise if there is no power over rates. There is plenty of room for scullduggery and resort to the existing antitrust laws is a costly and very time consuming and may involve even more regulation down the pike. We would prefer amendments by administrative action or by the Congress to an existing administrative method of handling this problem.

[The prepared statement of Mr. Dryer follows:]

INDEPENDENT REFINERS ASSOCIATION OF AMERICA

1775 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20006
(202) 466-2340

Statement Of

Edwin Jason Dryer

Executive Secretary and General Counsel

Independent Refiners Association of America

Before The

Subcommittee on Energy Regulation

Committee on Energy and Natural Resources

United States Senate

May 21, 1982

Mr. Chairman: I am Edwin Jason Dryer, Executive Secretary and General Counsel of the Independent Refiners Association of America. Our Association, which has been in existence since 1949, represents a score of small and independent oil refiners across the country. We are furnishing a list of our members to the Committee.

Mr. Chairman, I appreciate the opportunity to appear before the Committee today as you begin your hearings on S.1626. The subject of pipeline regulation is an extremely important one for independent refiners who rely heavily on oil pipelines for transportation of crude oil and refined petroleum products. S.1626 would have a significant impact on the costs of independent refiner operations.

Moreover, deregulation of oil pipeline rates will take money out of the pockets of petroleum users throughout the economy. We are concerned that this legislation will wind up costing industries and the consumer daily in a misguided attempt to save the taxpayer the costs of administering pipeline rate regulation. Further, because the bill retains regulation over discrimination and certain other aspects of pipeline operation, we think the costs to government would not be reduced.

Our Association is firmly committed to deregulation where it is appropriate. However, we recognize that there are circumstances where government must exercise appropriate regulatory functions. It is fundamental to our system of free enterprise that the regulatory authority of the government (either federal or local as the case may be) protect the American consumer and business from abuses of monopoly power. Oil pipelines in almost all instances are natural monopolies and should be subject to continuing governmental ratemaking authority.

We do not believe that the antitrust laws, absent federal rate setting authority, will be adequate to protect the American consuming public from the exercise by oil pipelines of their inherent market power. Our refiners, despite the significant interest they have in the matter, will be no match for the major pipelines in bargaining on rates. The costs of protracted litigation are simply too great to expect that, through a complaint process, they can control the market power of vertically integrated pipelines to the benefit of their businesses and the consumer.

My testimony will raise a number of questions which we believe the Committee must thoroughly study before going forward with legislative changes in this area. While IRAA shares the concern that the current regulatory forum is not doing the job as well as it should, it is infinitely preferable to the chaos that could result from hasty action in this matter. The questions we would have the Committee address and our own analysis follow:

1. Do oil pipelines by their very nature possess monopoly characteristics?

Our answer to this is affirmative. Oil pipelines are the most efficient means of transporting crude oil and product for significant distances. While the pipeline industry is not highly concentrated, many refineries have access to only one crude or product pipeline between each of their origins and destinations. The existence of a pipeline traveling in the opposite direction from a refiner's market is little solace in seeking competitive alternatives. Nor is truck or barge transportation a viable alternative in a vast number of cases. While barge traffic can be competitive where both the origin and destination are accessible to water, truck transportation can never be a viable alternative for surface transportation except for very short distances. The fact that there is a much more costly alternative does not create a competitive alternative and thus does not dilute the monopoly characteristics of the pipeline industry.

Oil pipelines exhibit such great efficiencies of scale that there is generally an optimal size for a given pipeline. It is a well established principal that small increases in capital expenditure permit significantly expanded pipeline capacity. Thus, pipelines tend to have a very limited number of competitors, if any. On the contrary, the economics of the industry tend toward greater concentration for each point to point connection through joint venturing and other producer-owner devices to assure that only one facility will be built.

2. Would deregulation spur competition and hold prices down?

We think not. Experience in other deregulation efforts has shown that it is the threat of new entry, or the actual event itself, that creates downward pressure on price. The airline deregulation experience, as well as motor carrier deregulation, were coupled with removal of artificial barriers to entry. New services have indeed sprung up, and the markets can be said to be working competitively. However, in the oil pipeline business, government is not the barrier to entry. Unlike those modes of transportation, it is not possible to easily expand capacity by new entry as demand increases. Occasionally, a project of very substantial magnitude is undertaken such as TAPS. However, it is designed to provide for a wholly new service. As a general rule, new traffic on existing pipeline routes tends to be accommodated in existing and noncompetitive facilities.

There is no empirical evidence that deregulation will lead to major new competitive pipelines. On the contrary, rate freedom, in and of itself, essentially guarantees that any incentives to develop new pipelines will be quashed by those presently providing service. On hearing of plans to build a new line, an existing pipeline, with its low overhead costs and its high rate of return on equity, even under current regulation, can simply reduce its tariffs in the short-term on a non-discriminatory basis. Once the potential entrant is thus frightened off, rates are likely to return to their pre-entry threat levels.

3. Will continuation of anti-discrimination provisions prevent market abuse?

Again, we think not. Requiring that shippers receive non-discriminatory service while removing the FERC jurisdiction over rates is an empty promise, creating false hopes that cannot realistically be met.

A few examples come to mind. Suppose a vertically integrated pipeline raises its tariff by $1 per barrel (for a given transportation segment) both to shippers with their own crude oil production and to non-producer shippers. The producer-shippers then reduce their wellhead price accordingly. For the producer-shipper, the price of oil delivered to its refinery is the same. The profit-center has merely shifted from the wellhead to the pipeline. For the non-producer shipper, the price increase of crude oil delivered to the refinery is real and not merely a shuffling of paper. Is this discrimination or is it merely rate setting beyond the jurisdiction of FERC?

Or suppose that a vertically integrated pipeline restricts its services to carry only volumes over a certain minimum. What if it charges different rates for different volumes of throughput? The independent producer may have the option then of selling to the pipeline owner at the wellhead rather than to the independent refiner. Is this discrimination? What recourse, if any, would the independent refiner have?

We don't know how such questions will be resolved. We anticipate that this will require the development of a brand new body of law, over a period of many years and involving extensive litigation, during which time we may or may not have interim protection and all concerned will be operating with uncertainty.

4. Will S.1626 result in evasion of the Windfall Profits Tax?

We see a real potential for abuse here. Because integrated pipeline companies can, as we discussed before, reduce the price attributed to their crude oil at the wellhead and make up the difference in the pipeline charges, the federal government may lose substantial tax revenues. Under this scenario, the integrated producer/pipeline-owner/refiner would have the same delivered costs at the refinery as before the pipeline rate increased, but it would actually increase its after-tax profits.

For independent refiners who are members of our Association, the pre-pipeline cost of crude oil would remain the same, certainly with respect to the large volumes of foreign oil they use. But the delivered cost of our crude oil would rise as domestic producers who are also pipeline owners merely shift their profits to their transportation subsidiaries. At the refiner level, we would face a serious and artificial competitive disadvantage.

Moreover, we understand the state of Alaska has similar concerns with respect to its state severance tax. We suggest that the Committee take a hard look at this question in light of federal deficit concerns.

5. Are the existing antitrust laws an appropriate remedy?

We understand that the bill in its present form, with the amendment included in the December 11, 1981 Congressional Record, retains authority in the Commission to "determine and prescribe what individual or joint regulation, or practice is or will be just, fair, and reasonable" when it finds a rate or charge to be unjustly discriminatory. The scope of the authority is not clear, particularly in view of the express repeal of the "just and reasonable" requirement for rates. This confusion is itself a problem which must be resolved. If the Commission does not retain some authority to prescribe rates, then we are left with the existing antitrust laws.

Private treble damage suits under the existing antitrust laws are not an appropriate remedy for likely abuses of oil pipeline monopoly power. Such proceedings are lengthy and costly. They will have the likely result of replacing administrative regulation with regulation by litigation. Fully articulated administrative standards developed in formal proceedings would be by far the better approach. In the instant circumstance, it is hoped that the decisions in the Williams and TAPS cases will establish standards to guide the industry in setting just and reasonable rates. If the Congress is dissatisfied with the outcome of these cases, it can then evaluate whether legislative changes in the rate requlation provisions of the Interstate Commerce Act are necessary to reach a fair and equitable result. This approach, which builds on the experience and record to date, would be far preferable to starting out anew by substituting private antitrust litigation for public regulation.

In addressing this issue, the Committee should also consider the appropriateness of bringing before the already overburdened federal district courts a welter of complex litigation in a new subject area.

In sum, we see a major difference between deregulation in the airline and trucking industries, on the one hand, and the pipeline industry, on the other hand. The policy goal of minimum regulation should not blind us to the problems we face here. These problems require careful study, in which the present hearings by this Committee are a worthy initial step.

Senator **Nickles**. Thank you. Mr. Anderson: I might advise, too, that means we have a vote and it means both Senator Murkowski and I are going to have to vote within 15 minutes, so Mr. Anderson?

STATEMENT OF JOHN F. ANDERSON, PRESIDENT, FARMLAND INDUSTRIES, INC.

Mr. **Anderson**. Thank you, Mr. Chairman. My remarks are going to be limited to several selected points from our written testimony.

I have asked Mr. Fulton to show a couple of charts here I think that are pertinent to this. In Farmland's area we have a situation where competition for transportation, petroleum product, crude oil, fertilizer, and LPG really aren't competitive other than through a pipeline system. Such pipelines should not be deregulated since the rate would not be controlled by competition.

These two charts, for example, show the differential between the combination of real and pipeline rates from a refinery to the northern area and/or a straight truck rate. In most of these cases, the combination rail and pipeline rate is about, the truck rate is three and a half to four and a half times the combination rail and pipeline rate. In most of our areas there aren't water routes available and real rates are somewhat comparable to these.

It should be apparent that pipelines have no significant effective competition from other types of transportation. No other type of transportation has reached low enough to keep pipeline rates down for the long distance. Because of this lack of competing transportation, our exhibit 2 is often used by pipelines to try to show that they do compete with each other. A closer look at these pipeline situations such as that shown in exhibit 3 quickly demonstrates that the exhibit 2 map can be misleading. The exhibit 3 shows the true common carrier refined fuel pipelines in our general areas of transportation. We have taken off the LPG lines, the fertilizer lines, coal slurry lines, as well as the refinery fuel lines which are not in fact available for the through common carrier use, and we think that this difference is quite dramatic.

The overlay shows the areas of monopoly power of the Williams Pipe Line and the Kanop system. Similar overlays could be done on other pipelines such as Chase, Wigo, Chevron, Yellowstone, Senex, and Sun. Some similar situations can exist in other product lines. What we are saying here is this is not unlike the TAPS situation in Alaska. It is not as obvious because there are a maze of pipelines in there. The volume isn't nearly as large, but still to the end users on the end of that line as you get closer to the end of the line and the product distribution system, the volume is less and less.

[The prepared statement of Mr. Anderson follows:]

TESTIMONY OF JOHN F. ANDERSON, PRESIDENT OF FARMLAND INDUSTRIES, INC., AND CRA, INC.

BEFORE THE

SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND
NATURAL RESOURCES
SENATE

ON

S. 1626
DEPARTMENT OF ENERGY
ORGANIZATION ACT AMENDMENTS
OF 1981

MAY 21, 1982

Mr. Chairman and Members of the Subcommittee:

I am John F. Anderson, president of Farmland Industries, Inc., and its wholly owned subsidiary, CRA, Inc. We appear here in opposition to Senate Bill 1626 and the proposed amendment to it. Farmland Industries is an agricultural cooperative owned by 2,300 local cooperative associations. These local associations serve their 500,000 farmer owner/members in 19 midwestern states. CRA, Inc., owns a refinery at Coffeyville, Kansas, with a refining capacity of approximately 60,000 barrels per day. Since the first of the year, CRA has announced intentions to shut down its two other refineries. CRA's Scottsbluff, Nebraska, refinery (5,600 barrels per day) will be closed effective June 1, 1982, and its Phillipsburg, Kansas, refinery (26,400 barrels per day) will be mothballed indefinitely effective October 15, 1982. The primary purpose of the Coffeyville refinery is to serve the needs of local member/owner associations of Farmland Industries and, in turn, the farmers and ranchers who are member/owners of those local cooperatives.

I am sure you don't need to be reminded that the agricultural sector of the economy as a whole is under extreme economic pressure. The agricultural producer has for the past few years seen the cost of his inputs rise dramatically without a corresponding increase in the price of the agricultural products in the marketplace. This has been good for the consumer, but the farmers and ranchers have been caught in a severe cost-price squeeze.

An unjustified increase in the cost of inputs for agricultural production such as petroleum products is of great concern to Farmland and the 500,000 agricultural producers we serve.

Energy costs are a significant percentage of the total production cost of many foods. For example in late 1981 energy costs were over 22% of the farm price of a bushel of corn. It requires a great deal of energy from petroleum products to produce the food which we are so used to having in bountiful supply. Even a relatively "small" increase in the price of petroleum products translates into large dollar-cost increases for the farmers and ranchers.

Those who have pressed for deregulation of pipeline rates argue that the pipeline transportation cost of crude oil and oil products is small--that only 4% to 5% of the delivered price of petroleum products is for pipeline tariffs. We have heard the transportation tariff portion of the consumers' cost described as de minimis. Farmland is not presently taking issue with the 4% to 5% figures relied on by proponents of the legislation. We do, however, very strongly disagree with characterizing 4% or 5% of the price of petroleum as de minimis. Farmers will tell you that 4% or 5% on their cost of fuels is significant to them and can make the difference between profit or loss.

We also do not think a 3.6% decline in the consumer prices in March is de minimis. According to the April 26, 1982, Wall Street Journal, the

March decline was caused in large part by a 1% drop in transportation costs, which reflected a 4% drop in the price of gasoline. All of these percentage figures are significant numbers, and all are equal to or less than the 4% to 5% relied upon by proponents of the legislation, and which they would like you to consider as de minimis.

In Farmland's last fiscal year we have paid approximately $36 million in pipeline tariffs. Obviously, even a small percentage increase in pipeline tariffs translates into large dollar figures which ultimately the farmers and ranchers have to pay.

Proponents of the legislation would like you to believe that there is no need for concern about excessive increases in pipeline rates--that "intermodal" and "intramodal competition" will determine the rates--that free market factors will keep the rates at reasonable levels. If there were free market factors at work, we would agree that they should be used. However, the pipeline transportation available for products in much of our 19-state marketing area does not have the attributes of free market.

In spite of the efforts of some to persuade you that there are a large number of different types of transportation alternatives for oil and petroleum products, there are in Farmland's midwest service area no effectively competitive transportation alternatives for the transportation of large volumes of oil and petroleum products from point to point over a long distance. Pipelines are simply so efficient in this type of transportation that no other transportation mode is available at competitive costs.

We don't deny that within a limited radius of our Coffeyville refinery, perhaps 50 to 75 miles, truck rates would be competitive with pipeline rates. This represents, however, a very small portion of capacity. Trucks are not, for a much more significant delivery area, a competitive transportation alternative for shipments from our Coffeyville refinery to Des Moines, Iowa--or to Minneapolis, Minnesota--or to Grand Forks, North Dakota as shown by Exhibit 1. Exhibit 1 compares transportation charges as of April 15, 1982. Transportation charges for delivery of gasoline from our Coffeyville, Kansas, refinery to the Farmers Elevator Company at Bondurant, Iowa, are 3.11 cents per gallon. This is comprised of 2.18 cents per gallon for pipeline to Des Moines, and 0.93 cents per gallon for truck transportation from pipeline to destination at Bondurant. Truck transportation of gasoline from Coffeyville to Bondurant would have been 9.13 cents per gallon, or almost three times the present amount of transportation involved in delivery to the Farmers Elevator. That is a difference of almost 6 cents per gallon.

Another example is the transportation charges for delivery of gasoline from Coffeyville to the Minneapolis, Minnesota area. The transportation charges for delivery to destination are 2.87 cents per gallon for the pipeline and 1.06 cents per gallon for truck from pipeline to destination, for a total of 3.93 cents per gallon. If it were necessary to truck the gasoline, the transportation would cost 15.44 cents per gallon, or nearly 4 times the transportation charge if the pipeline is used. That is a difference of approximately 11.5 cents per gallon.

I'd like to give one final example of transportation of gasoline from Coffeyville to Farmers Union Oil Company at East Grand Forks, North Dakota. The pipeline transportation to Grand Forks is 3.62 cents, with truck transportation from pipeline to destination of .97 cents, for a total of 4.59 cents. This compares with a charge for transportation by truck of 20.38 cents or nearly 4½ times the cost if the pipeline is utilized. This is a difference of more than 15 cents per gallon to Farmers Union Oil Company. These examples all show that truck transportation does not provide effective competition for pipelines and does not in any way operate to restrain pipeline rates.

These examples are the rule and not exceptions. These are just a few of hundreds of other similar situations. It is also worth noting that in each of the above examples the destinations are within 20 miles of the pipeline and the trucking charge for just that distance is a significant part of the combined pipeline and truck transportation charges.

There are no river routes available for barge transportation for any of the above examples. Essentially barge transportation is, with rare exception, nonexistent west of the Mississippi and east of the west coast and certainly doesn't exist for our Coffeyville refinery. There is no indication that water transportation in any way limits pipeline charges in our trade area.

Rail rates are somewhat more difficult to compare. First of all, we would have to purchase or lease rail cars in order to haul the product. Rail rates are much closer to truck rates than to pipeline rates, as can be seen by comparing the following rail rates to destinations which approximate those in Exhibit 1. Rail rates from Coffeyville to Des Moines, Iowa, are 8.910 cents per gallon. Rail rates from Coffeyville to Minneapolis are 11.418 cents per gallon. Rail rates from Coffeyville to Grand Forks are 14.322 cents per gallon. The rail rates in each case are about four times the comparable pipeline rate. In addition, most of our local associations do not have bulk plants on rail sidings and would therefore require truck transportation from the railroad to their facility so a total transportation charge for delivery to destination would be greater than the rail rates alone. Perhaps the best indication of the lack of effective competition provided by rail carriers is the fact that in 1976 they accounted for only 1.4% of the tonnage of petroleum products.

According to The Williams Companies' 1981 Annual Report, Williams Pipe Line transported 172 million barrels of crude and product during 1981. This would be the equivalent of approximately 780,000 transport truckloads or 312,700 rail tank car loads. It is obvious that trucking and rail facilities and capabilities are inadequate to handle the volume of crude and products presently transported by the country's pipelines.

CRA does participate in exchanges; however, exchanges do not move product. Products from most refineries, including our Coffeyville refinery, must be transported beyond the immediately surrounding area. For example, there are no refineries in Des Moines, and all petroleum products sold and used in Des Moines and central Iowa must be transported there from refineries located elsewhere. The vast majority of Farmland's 2,300 member associations, and the 500,000 agricultural producers they serve, are not within 50 to 75 miles of a refinery. Recent refinery closings have further limited exchanges. Finally exchanges provide very little net savings since there is usually an exchange differential which is based upon transportation costs. As pipeline rates have increased, exchange differentials have likewise increased.

It is claimed that one way for alternative pipelines to be made available is for a shipper to build its own pipeline or pipelines. The capital cost of constructing a new pipeline system is large. Such an investment is not likely to be made in a new pipeline paralleling an existing pipeline if the capacity of the existing pipeline is sufficient to meet the demand. The existing pipeline will almost always be able to charge lesser rates than a new parallel system would have to charge. Such a new parallel pipeline system could be built only if it had sufficient assurances that shippers would continue to use its services even though the existing pipeline charged lower rates. On the other hand, a new pipeline could be built if the demand sufficiently exceeded the capacity of an existing pipeline and the existing pipeline was unable or chose not to expand its capacity. In that case, however, the new pipeline is not built to compete with the existing pipeline, but rather to provide additional service justified by additional demand.

In addition to the economics, there are other difficulties facing the construction of a new pipeline. Some of the obvious ones include the expense of obtaining right-of-way, especially in the case of small diameter long-distance pipelines. Another obvious difficulty is the satisfying of environmental concerns. While these difficulties would be faced by any new pipeline, they further illustrate the advantage an existing pipeline has over any proposed new parallel pipeline, especially where the capacity of the existing pipeline is sufficient to satisfy an existing demand.

Specifically, with regard to CRA, it is unreasonable and not economically feasible for CRA to build a pipeline that would have any substantial effect on its overall transportation requirements. We simply are not in a position to replace any significant part of the existing pipelines we use with our own pipeline system. In addition to the above restrictions, a pipeline sized to meet only the requirements of CRA throughout our marketing area would not be big enough to provide the economies of scale which are characteristic of larger pipelines and which are enjoyed by the pipelines CRA is currently using. Without such comparable economies of scale, a CRA pipeline could not compete with an existing pipeline. Furthermore, the efficiencies of the economies of scale would be lost to the farmers and ranchers served by our members and would be lost to the economy as a whole.

The proponents of pipeline rate deregulation often point to various pipeline maps to demonstrate the vast number of pipelines throughout the country. At first glance, a products pipeline map such as shown in Exhibit 2 does make it appear that there is a competitive situation on pipelines, but I think that we must look at such a map in more detail. This map includes pipelines for transportation of propane and other natural gas liquids, pipelines for anhydrous ammonia fertilizer, pipelines for coal slurry and the Bureau of Mines helium pipeline. Of the remaining pipelines, many are owned by refiners who use them as part of their distribution system with connections from their refineries at one location to their pipeline terminals at other locations, and these pipelines are not available for shipment of refined fuels by Farmland or other non-owner refiners.

The map which we have produced as Exhibit No. 3 shows the pipelines which Farmland's Supply and Distribution Department generally found are true common carrier refined fuel pipelines within Farmland's area of operation. Analysis of this map indicates that in actuality there is little or no competition between pipelines. For all of the examples on Exhibit 1, the Williams Pipe Line is the only choice available to us for pipeline transportation of our products from our refinery to the various destinations.

Farmland's refinery at Coffeyville, Kansas (in the southeast corner of the state), is connected to the Williams pipeline, which efficiently transports refined fuels north to Kansas City, through Iowa and Minnesota, into the Dakotas, Illinois, Wisconsin and Nebraska. As can be seen from this map, the Kaneb Pipeline also transports refined fuels from Kansas refineries north through Nebraska and the Dakotas, in addition to serving a small portion of northwest Iowa. There are a few very limited areas in which there are alternates of using Williams or Kaneb for servicing certain areas, but these are a minor portion of the area served for us by either Williams or Kaneb. Our experience during the past several years has been that periodic increases by one of these two pipelines were soon followed with similar increases by the other pipeline, so we don't feel that we can anticipate that "competition" between the two pipelines would be much of a restraining influence without regulation. As can be seen from the map, Exhibit 3 - -

-The Chase Pipeline from Eldorado, Kansas, with supply terminals in western Kansas and at Denver, Colorado, has no competition in servicing that area with product from Kansas and Oklahoma refineries.

-The Wyco Pipeline supplies Denver from the Wyoming and Montana area.

-The Chevron Pipeline has no competition from Salt Lake City to terminal points in Idaho.

-The Yellowstone Pipeline is the only pipeline available from Billings, Montana, for servicing western Montana, as well as other points.

-The Cenex Pipeline is the only pipeline available from Billings, Montana, to eastern Montana and North Dakota.

-The Sun Pipeline is the only pipeline available from Oklahoma refineries for servicing points in Arkansas and West Memphis, Arkansas.

Anhydrous ammonia (fertilizer) pipelines operate under the same regulations as petroleum pipelines. Availability of pipelines for movement of anhydrous ammonia is very restricted. As can be seen from Exhibit 4, the Mapco Pipeline, which connects to our producing plant at Enid, Oklahoma, transports product into Kansas, Nebraska, Iowa, and Minnesota. There is no economic alternate to this pipeline to transport Enid production into the northern areas. The Gulf Central Pipeline, which connects to our Pollock, Louisiana, producing plant, moves product north into Missouri, Illinois, Indiana, Iowa, and Nebraska. Similarly, there is no economic alternate to this pipeline movement.

As can be seen from Exhibit 5 reflecting common carrier LPG pipelines, the availability of these pipelines is quite limited. We have no economic choice but to use the Mapco Pipeline for transportation of purchased propane from west Texas, New Mexico, the Oklahoma panhandle, or southwestern Kansas producing plants which is to be distributed through local co-ops to farmers in our northern marketing areas. The only economical means of transporting propane produced in Alberta, Canada, into our marketing area is the Cochin Pipeline.

We are in a similar captive position on point-to-point movements of crude oil. We do own some gathering systems, as well as some short pipelines which are connected to our refineries. For most of our crude oil supplies we must make connections with other pipelines which are owned by other oil companies who are our competitors in purchasing crude oil from crude producers, as well as in selling petroleum products in the marketplace.

We recognize the risk factors attendant to building new pipelines. We have an interest in the Seaway Pipeline which was completed in 1976 from Freeport, Texas, on the Gulf Coast to Cushing, Oklahoma. With the slackening of demand for petroleum products during the last few years and the subsequent lowering of dependence on foreign crude, the usage of this line and resultant profitability has been less than anticipated.

It has been claimed that Coffeyville-refined products are delivered to the consumer through a large network of products pipelines. That is not the case and, in fact, we are a shipper only in Williams, Kaneb, and Sun. Each of these pipelines serves a separate distinct geographic area in our trade territory, and each is the only economically effective carrier in the area that it serves. This has been illustrated on Exhibit 6 which portrays the corridor through Iowa, Minnesota, Wisconsin, and Illinois where Williams Pipe Line is the only economically feasible common carrier for transportation of refined fuels from Kansas and Oklahoma refineries. Similarly Exhibit 7 shows a corridor through

Nebraska and the Dakotas where Kaneb is the only economically feasible carrier for transportation of refined fuels from Kansas refineries.

Pipelines have been called natural monopolies, and I think the above facts and certainly my experience supports that description. Whatever terminology is used, the fact remains that, with possible minor exceptions as described above, the pipelines used by Farmland have no competition for the shipments by Farmland and do not compete with each other. It is because of the absence of a free market that regulatory control of pipeline rates is necessary. We believe the goal of regulation should be to establish rates which approximate as closely as possible the rates which would result if there were effective competition in a free market.

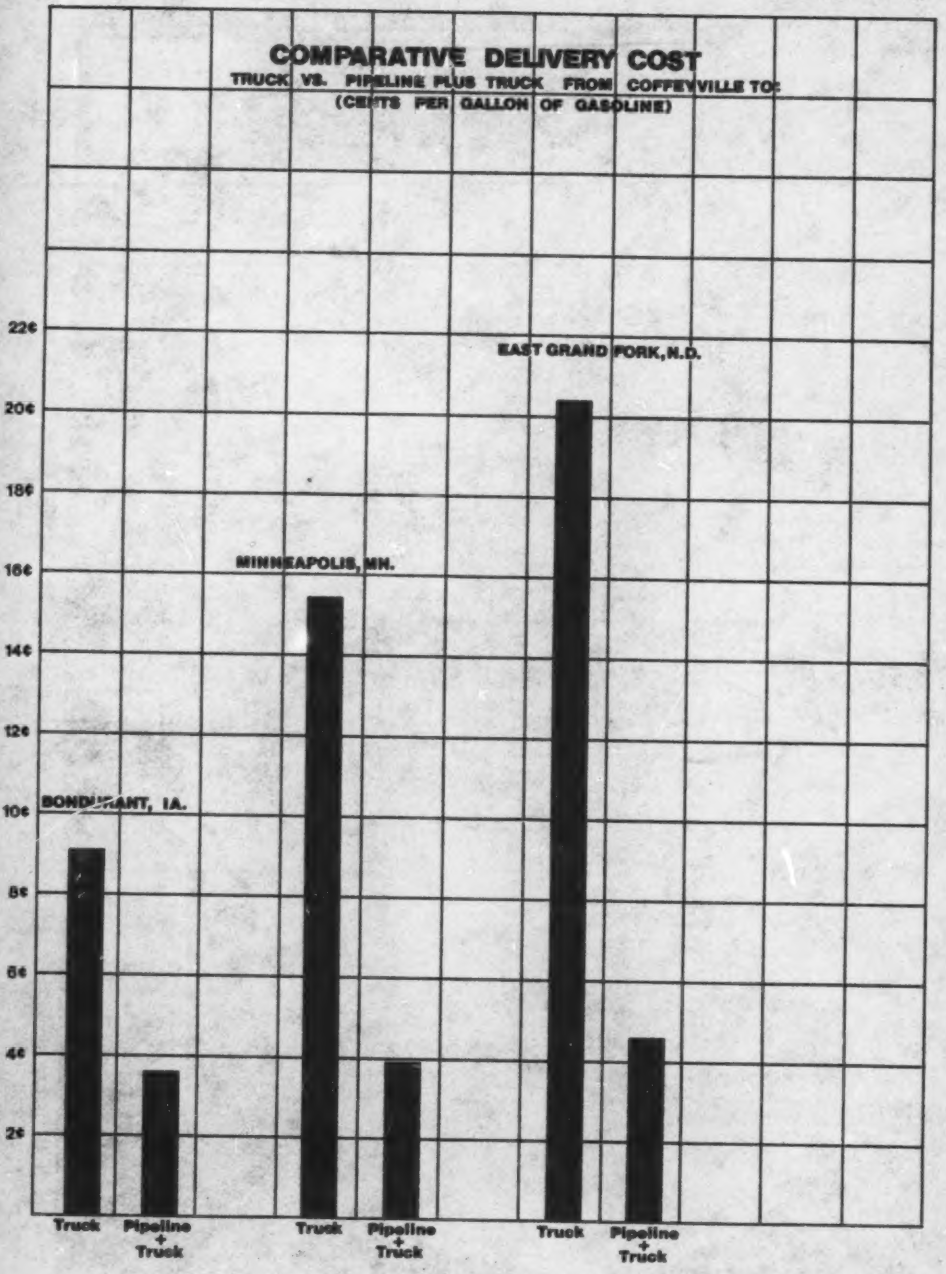
We do not believe rate regulation need be unduly burdensome or costly. Our own experience with the application of existing regulations has been something less than satisfactory. For example, we have been involved in a rate proceeding concerning petroleum product shipments on the Williams Pipe Line since 1971. Such a protracted delay is excessive and effectively deprives the shipper of relief.

We also believe that proper rate regulation would not require the suspension of every tariff filed. In fairness, however, the present large backlog of FERC tariff cases is more illusory than real. It seems very likely that once fundamental rate regulation principles are established, those cases will be disposed of with dispatch.

One of the announced purposes of pipeline rate deregulation is to create the incentive to make additional pipeline investments. With respect to petroleum product pipelines, there is no apparent present need for any new parallel pipeline systems. Because of the natural economies of scale of pipelines, it does not make sense to encourage multiple parallel pipelines. Some new product pipelines may be needed if there is a significant shift in the current demand picture. By this I mean more than just an increase in total demand. A significant change in population concentrations might change the demand in certain geographical areas. Another example that could result in a new pipeline would be a change in supply due to refinery closings. New crude oil discoveries might result in a new crude oil pipeline being built. We are not aware of any example of a pipeline not being built because of ICC or FERC rate regulation. At such time as additional pipeline transportation systems are required, we are sure they will be built and that FERC regulation requiring just and reasonable rates would not prohibit the construction of such pipelines.

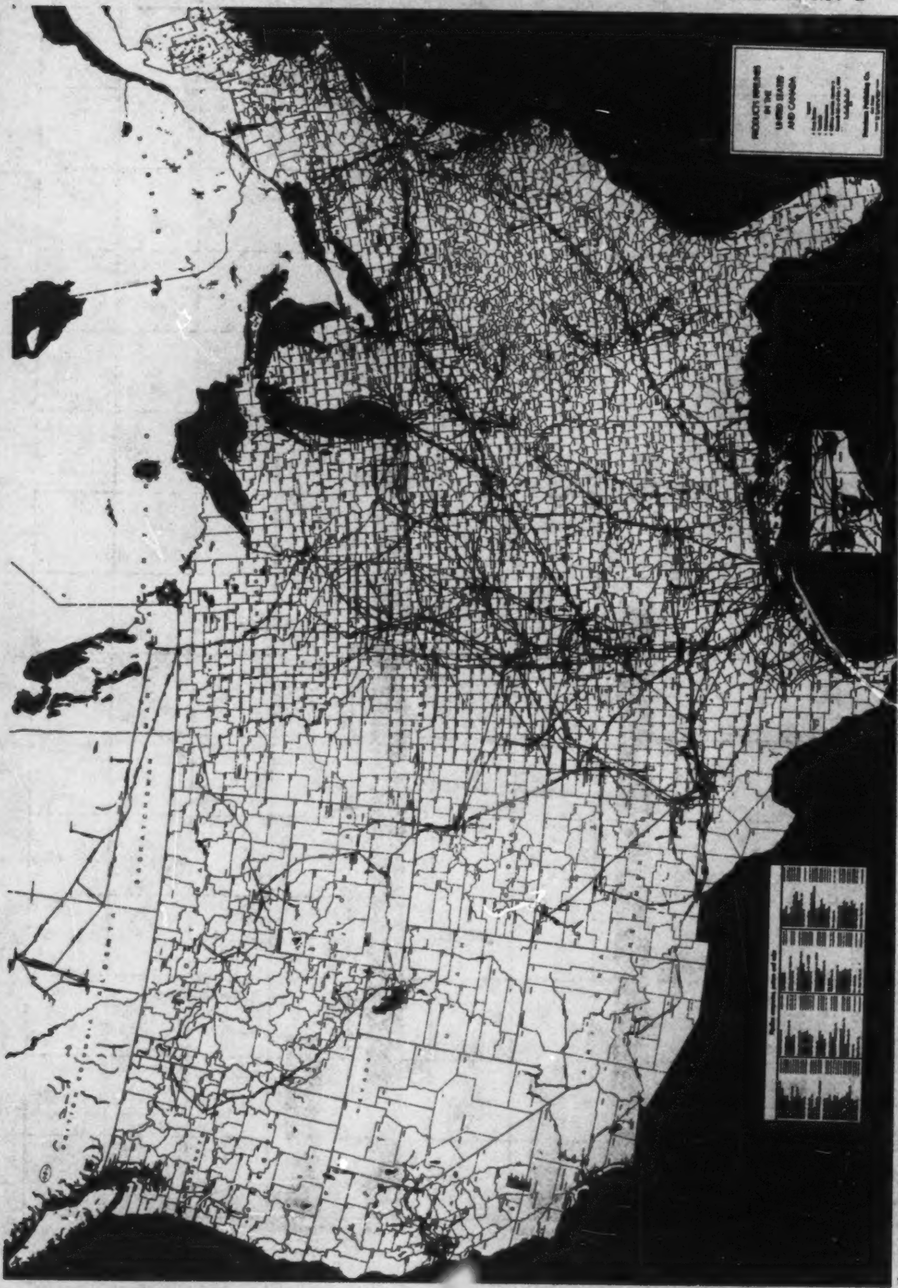
I appreciate the opportunity you have provided me to share with you some of our concerns and the concerns of the farmers and ranchers which own Farmland Industries. We think other consumers will have the same kinds of concerns that the agricultural producers have. I hope we have been able to shed some new light on this matter of pipeline regulation. Most of all, we hope that you understand why we feel it is imperative that protection be provided to pipeline shippers through effective regulatory controls.

Exhibit No. 1


COMPARATIVE DELIVERY COST
TRUCK VS. PIPELINE PLUS TRUCK FROM COFFEYVILLE TO:
(CENTS PER GALLON OF GASOLINE)
22¢
20¢
18¢
16¢
14¢
12¢
10¢
8¢
6¢
4¢
2¢
BONDURANT, IA.
MINNEAPOLIS, MN.
EAST GRAND FORK, N.D.
Truck
Pipeline + Truck
Truck
Pipeline + Truck
Truck
Pipeline + Truck

PRODUCTS PIPELINES

Exhibit No. 2



(Includes LPG, Anhydrous Ammonia, Helium, Coal Slurry, and all Refined Fuels Pipelines, including those available as well as those not available to non-owner shippers.)

Exhibit No. 3

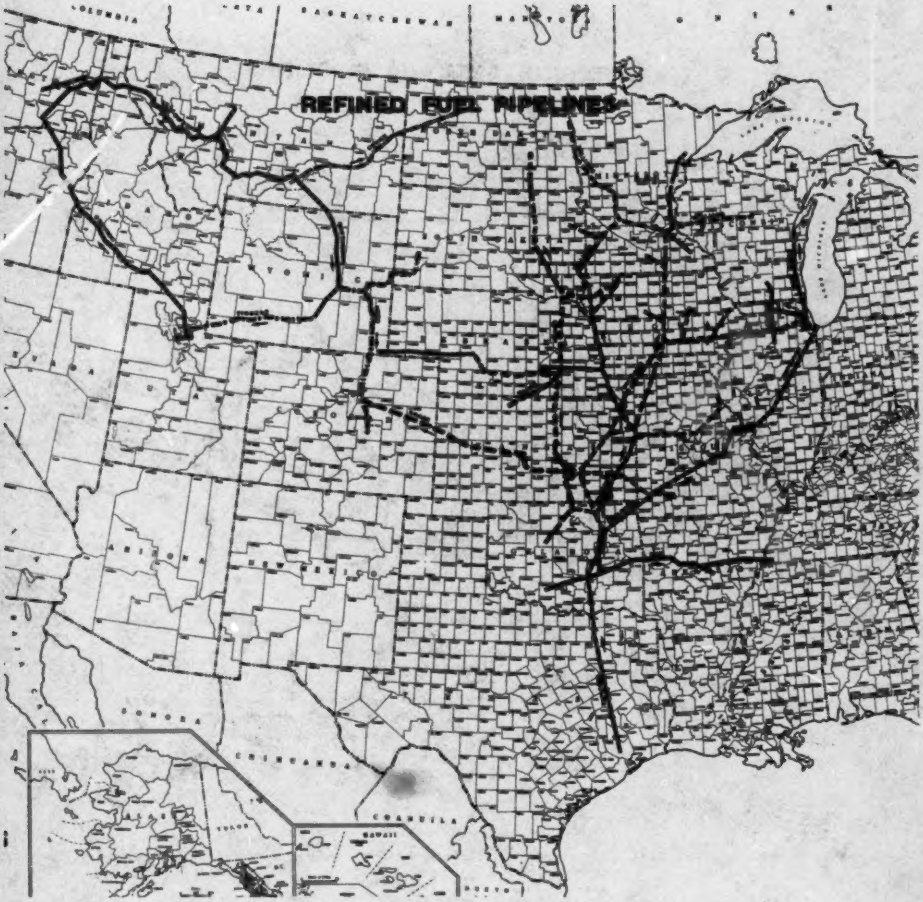

REFINED FUEL PIPELINES
SASKATCHEWAN
ARIZONA
NEW MEXICO
SONORA
CHIHUAHUA
COAHUILA
HAWAII

Exhibit No. 4

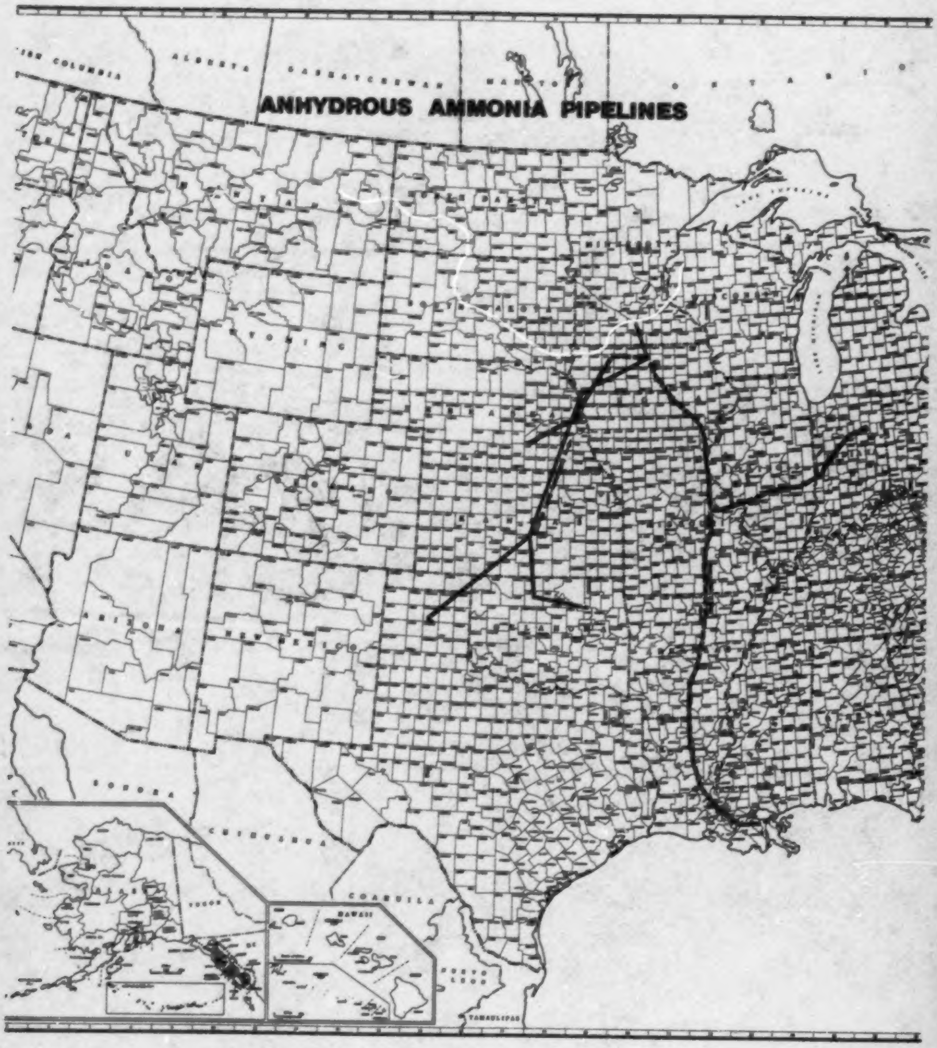
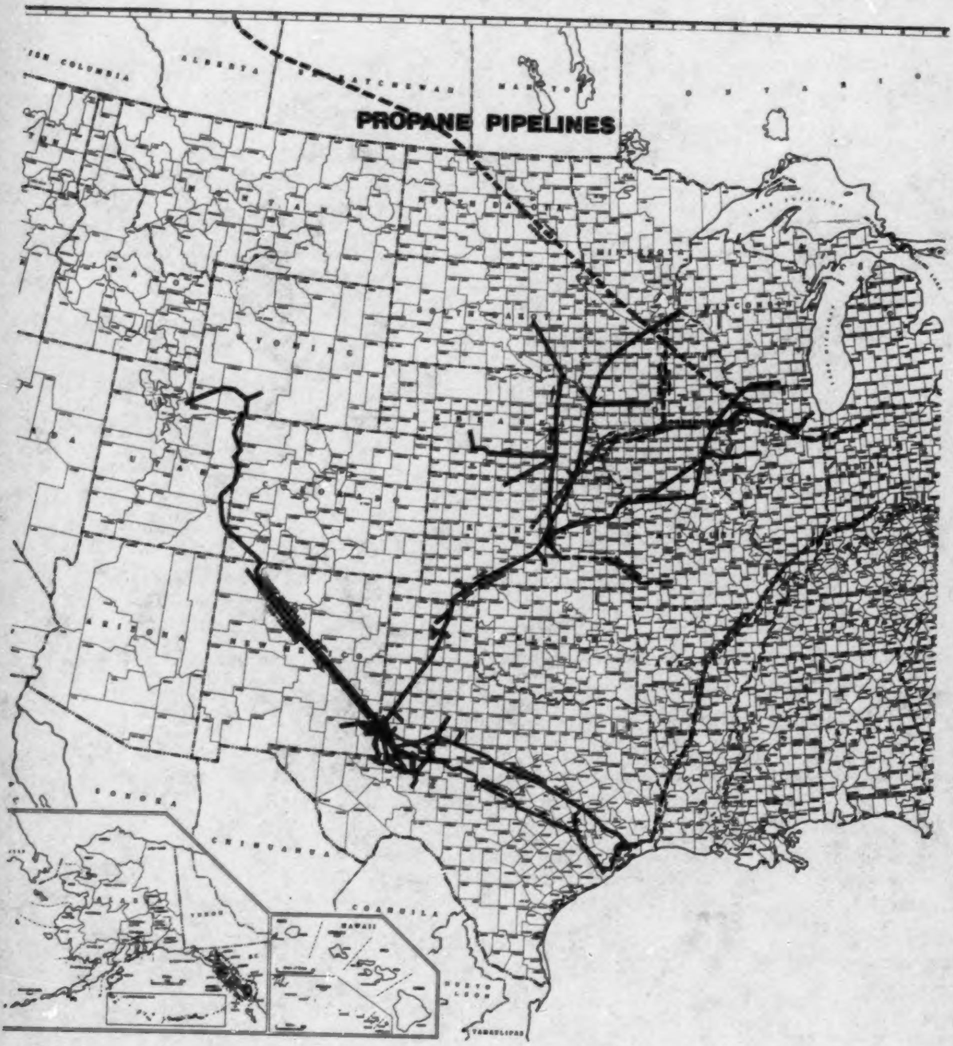

ANHYDROUS AMMONIA PIPELINES
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
WYOMING
ARIZONA
NEW MEXICO
SONORA
CHIHUAHUA
COAHUILA
NUEVO LEON
TAMAULIPAS
HAWAII
YUKON

Exhibit No. 5


PROPANE PIPELINES

BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
ARIZONA
NEW MEXICO
SONORA
CHIHUAHUA
COAHUILA
NUEVO LEON
TAMAULIPAS
HAWAII

Exhibit No. 6

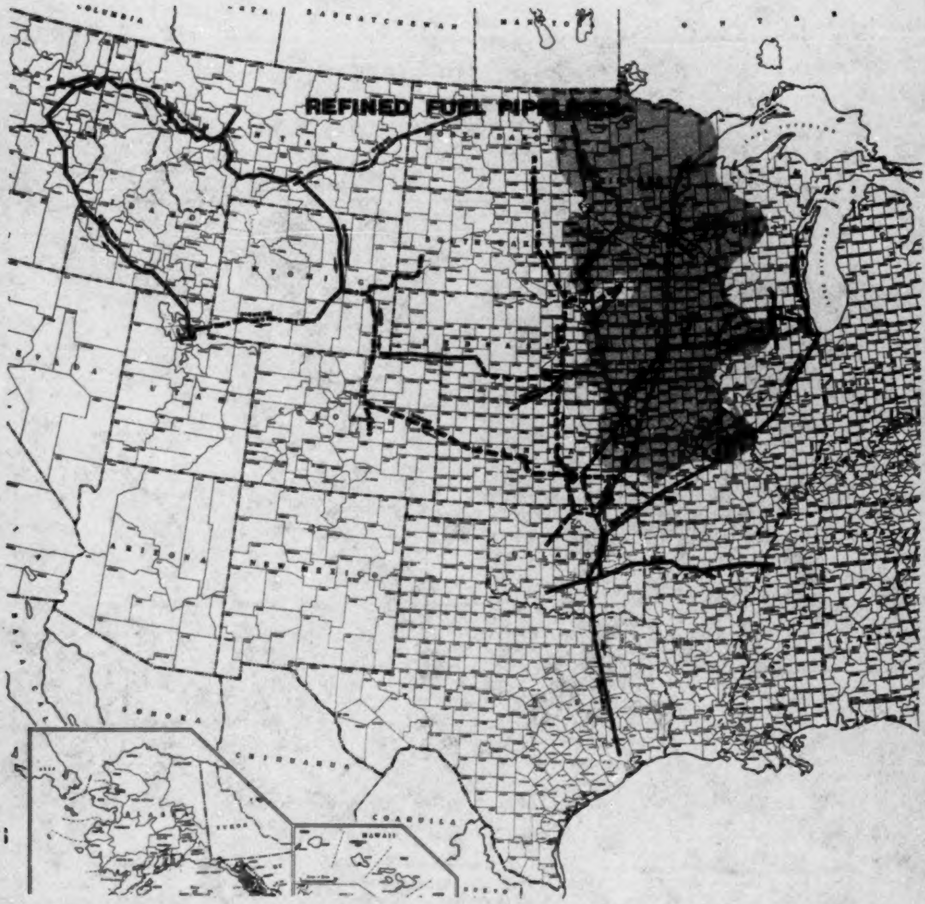
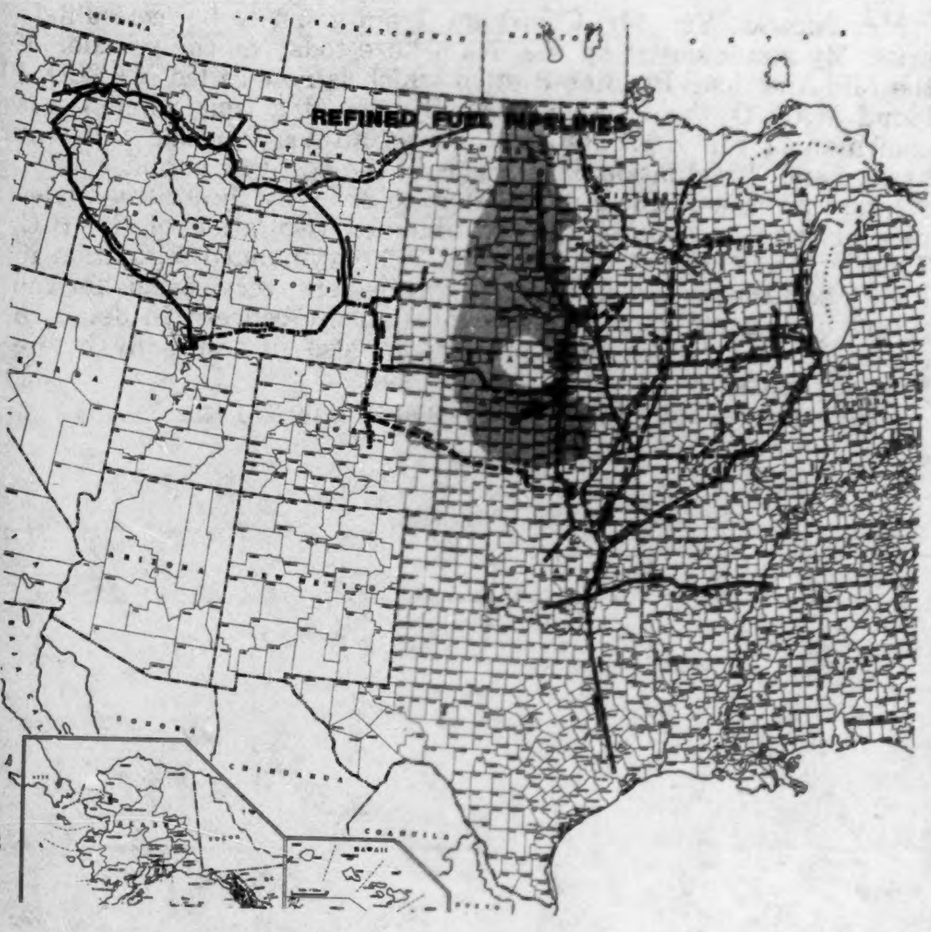

REFINED FUEL PIPELINES
SASKATCHEWAN
MANITOBA
ARIZONA
NEW MEXICO
SONORA
CHIHUAHUA
COAHUILA
HAWAII

Exhibit No. 7


REFINED FUEL PIPELINES
SASKATCHEWAN
ARIZONA
NEW MEXICO
SONORA
CHIHUAHUA
COAHUILA
HAWAII

Senator **Nickles**. Thank you. Let me interrupt because we still have two more people and we have 6 minutes and Senator Murkowski and I have 11 minutes to vote.

STATEMENT OF ROBERT E. THOMAS, CHAIRMAN, MAPCO, INC.

Mr. **Thomas**. Yes, Mr. Chairman. I am going to be exceedingly brief. My statement is on file. I am here today as the founder of the Mid-American Pipeline System which is now called MAPCO. I found MAPCO, the Mid-American System at a time when I was chairman of the K&D Railroad. I was all too familiar with the heavy-handed regulation of railroads in the post-war period.

I got into this business in an effort to diversify the railroad business activity because of the light-handed regulation of the ICC. Today my fear is that we are going to heavy-handed regulation in FERC, and that is something that will be very, very serious for the future of this industry. I have expressed my concern in detail in oral argument before the Commission, also in testimony before your committee.

[The prepared statement of Mr. Thomas follows:]

Statement by

Robert E. Thomas
Chairman, MAPCO Inc., Tulsa, Oklahoma

before the

SUBCOMMITTEE ON ENERGY REGULATION
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

in support of

S. 1626, the "Department of Energy
Organization Act Amendments
of 1982."

May 21, 1982

Mr. Chairman, my name is Robert E. Thomas, Chairman of the Board, Chairman of the Executive Committee and Policy Committee of MAPCO Inc. of Tulsa, Oklahoma.

I am pleased, Mr. Chairman, to testify on the proposed Pipeline Regulatory Reform Legislation. I would like publically to express my appreciation to the sponsors and cosponsors of S. 1626 for their initiative in attempting to achieve long overdue regulatory reform for the petroleum pipeline industry.

Before turning to the merits of the legislation, I would like to provide the Subcommittee with a brief description of the formation and expansion of MAPCO.

The Mid-American Pipeline System was constructed and placed into operation in 1960. It was the first long distance common carrier pipeline devoted exclusively to transporting natural gas liquids. We were able to secure financing for the pipeline because we could offer shippers ease of entrance, high deliverability in the market place, short transit times, and most importantly, a scale of rates which would deliver product into a market area at costs below competitive transportation.

In 1968 we built the nation's first anhydrous ammonia pipeline system, which now extends from Texas to Minnesota covering over 1,000 miles.

Today MAPCO is an integrated energy company that also:

-- explores for oil, gas and coal;

-- produces, refines and markets oil, gas and natural gas liquids; and

-- produces and markets coal and hard minerals, liquid plant foods and sonic instrumentation.

As the operator of the nation's largest gas liquids common carrier pipeline, we at MAPCO hope to remain in the pipeline business and continue to help this dynamic industry expand to meet more fully our nation's energy needs.

For this reason, Mr. Chairman, I am here to urge you to pass the Pipeline Regulatory Reform Legislation that is the subject of this hearing.

Mr. Chairman, I am not here as an historian, a lawyer, or a political philosopher. I appear today, as I appeared on three separate occasions before the FERC, as a businessman. It is my intent to provide this Subcommittee with the perspective of a businessman who has been engaged, for over 21 years, in the product pipeline business.

Let me share with you the risks that we faced at the time of MAPCO's inception.

At the time MAPCO was built, very few believed that this pipeline could be built and operated by a nonshipper-owner, with funds generated from the sale of stock to the general public and senior financing by a major insurance company. The pipeline was built with no throughput guarantees from shippers and with no assurances to MAPCO's founders that any particular return on investment would be realized. In spite of the claims by current-day critics that the pipeline business is not risky, this was an extremely risky venture.

Despite the fact that the industry was federally regulated, I decided to take this risk and become part of the petroleum pipeline industry because the regulatory environment in 1959 and 1960 was dramatically different from that with which we in the industry must contend today.

When I entered the industry, the ICC had been regulating oil pipelines for decades. Throughout this regulatory period, the ICC used a guideline approach to earnings on a valuation based methodology. The ICC's regulatory approach recognized the competitive nature of the industry and permitted oil and petroleum pipelines the opportunity to earn adequate returns on their investments.

Although shippers were free to invoke the power of the ICC to arbitrate disputes concerning the reasonableness of rates, the ICC did not attempt, in the absence of shipper's complaints, to substitute its judgment for those of the oil pipeline shippers. Therefore, the ICC rarely instituted rate cases on its own initiative.

What did this regulatory environment mean to a businessman facing the risks associated with obtaining financing for a major pipeline system?

FIRST, it meant, generally that the market place rather than a government bureaucracy set transportation rates.

SECOND, it meant that there was freedom of entry to the industry for new ventures such as ours.

THIRD, it meant that existing pipelines could attract capital by earning adequate rates of return.

FOURTH, it meant that a regulated pipeline business could recover increases in operating costs on a timely basis without excess regulatory lag.

In this regulatory environment, I think it is understandable how an entrepreneur could conclude that he had a fair opportunity to make a success of the venture he was about to undertake.

Moreover, Mr. Chairman, the oil and product pipeline industry responded to the ICC's regulatory approach in a responsible manner. There was a virtual absence of shipper's complaints. For thirty years, tariff cases were practically nonexistent. Pipeline rates were, and are among the lowest of any form of transportation of petroleum, and have lagged behind inflationary increases in price levels. Most importantly, during these years of limited government intervention by the ICC, the oil and product pipeline industry provided this country with, what is now unquestionably, the world's most efficient energy transportation system.

Nothing would please me more, Mr. Chairman, than to report to you that the oil and product pipeline industry is healthy and experiencing new and vigorous growth.

Unfortunately, I am unable to do that.

Instead, I am here for two reasons. First, I am here to warn this Subcommittee of a threat to the continued viability of our industry. Second, I am here to advise the Subcommittee of an opportunity to address this threat and preserve our industry's most important characteristics -- open and free competition among its current participants, and ease of access for potential participants.

Mr. Chairman, the threat to the viability of the industry to which I alluded has been brought about by the new era of different, more restrictive and burdensome regulation that the industry has endured.

The opportunity to which I previously referred, is to stem this threat and to ensure the expansion and viability of the petroleum pipeline industry by enacting the legislation before you.

Let me first address the threat.

As you know, in 1977, with the creation of the Department of Energy, common carrier jurisdiction over oil and product pipelines was transferred from the ICC to FERC.

At that time, industry representatives testified before Congress that, while energy-related, the movement of petroleum by pipeline is essentially a transportation activity. We in the industry were concerned that the FERC, a reincarnation of the old

Federal Power Commission, was familiar only with the regulation of public utility-type industries, and might try to impose inappropriate concepts on common carriers.

Moreover, we in the industry felt that we had demonstrated, under the regulatory control of the ICC, that we could act in a responsible manner. We believed that the virtual absence of shipper's complaints and tariff cases, the low pipeline rates relative to other forms of transportation for petroleum and, of course, the development of the most sophisticated and efficient pipeline transportation system in the world, demonstrated that intrusive government intervention was unnecessary and counterproductive. We were concerned that the industry could not survive in a highly regulated environment.

Mr. Chairman, I am here to report that these apprehensions of the industry have been realized beyond our wildest fears.

Despite the fact that Congress directed that FERC continue to apply ICC rules and practices until changed in accordance with law, an attempt has been made to impose public utility regulatory precepts on oil pipelines on an ad hoc basis.

Simply because gas pipelines and electric utilities are regulated one way, it does not follow that we should regulate oil pipelines in the same manner.

With no wish to be repetitive, I do want to stress the differences between the petroleum pipeline industry and the natural gas pipeline industry. In the latter, certificates of public convenience and necessity provide natural gas pipelines with a protected market and an assured rate of return.

In our industry, there is simply no such protection afforded the petroleum pipeline transportation business. There are no franchises or legal monopolies granted by governmental authorities at either end of the pipeline. There is also intense competition in the industry, brought about by both the existence of other transportation modes and other sources of energy.

As a result of this competitive situation, MAPCO, like most other petroleum pipelines, has never realized the rates of return allowed by the ICC.

Thus, Mr. Chairman, our primary concern is not that we will be unable to meet the burden necessary to justify the rates that we charge for our service. Rather, our concern is that the industry cannot continue to grow and expand if we are subjected to the interminable delays, uncertainty, expenses and regulatory lag associated with meeting this burden.

I am a former railroader, having served at one time as Chairman of the Katy Railroad in the late 50s, and I have personal knowledge of the devastating effect of heavy-handed government regulation and regulatory lag on the railroad industry during the post-war period. You know the result as well as I do.

If FERC attempts to regulate oil pipelines in the same manner in which it regulates gas pipelines and electric utilities, I am certain that it is going to lurch, skid and slide deeper and deeper into a regulatory morass involving years of uncertainty, litigation and regulatory nonsense. The result will be to condemn this highly successful, financially viable, vibrant industry to a fate worse than sudden extinction, namely, strangulation.

As you probably already know, the FERC has spent five years, received thousands of pages of testimony and hundreds of pages of exhibits, but has yet to render any decision in the Williams Case. The Williams Case, as you know, is the generic case that FERC is using to set regulatory precedent for the entire industry. A decade after the initial protest to the ICC, and more than five years after the transfer to the FERC from the ICC, the timing of a final decision in the Williams Case -- and the substance of that decision -- is speculative at best.

In this regard, I must point out that MAPCO and similar companies would not be available to provide ready competition if the Williams Case decision results in the type of years-long proceedings of the kind to which the natural gas pipeline industry has been subjected. We desperately need the freedom to respond to a competitive situation, to expend our efforts in the construction of new pipelines, rather than meeting a regulatory burden which is certain to grow.

While the FERC continues to struggle with the Williams Case, virtually all new tariffs being filed are automatically suspended for one day, and are then allowed to go into effect, subject to refund to the shipper if found to be excessive. This is generally true regardless of the size of any new tariff increase or a pipeline's historical rate of return. Substantial potential liabilities for refunds, with interest, are being incurred on an industry-wide basis.

To understand the uncertain regulatory environment in which the industry must operate, one need only look at the number of pending tariff increases already placed in doubt by FERC. MAPCO has 46, the industry has a total of about 1,300. I shudder to think of the months stretching into years and years stretching into decades to get these cases settled, considering the snail's pace at which gas and other utility cases move before the FERC.

Today that Commission has not even begun to realize the problems that these suspension orders have already created.

In all fairness to FERC -- both its current and past members -- we cannot blame them for their attempts to regulate our rates because they are required to do so by a statutory mandate that is almost a half-century old.

I believe a good explanation for FERC's failure to find an appropriate and acceptable methodology -- and good arguments for enactment of the bill -- are contained in the remarks of two Energy and Natural Resources Committee members, which remarks appeared in the July 29, 1981, Congressional Record. Senator

Nickles observed: "It is time, not to reevaluate the method for regulating petroleum pipeline rate regulation, but to reevaluate the need for any petroleum pipeline rate regulation. The petroleum pipeline industry is characterized today by pervasive competition, and it is competition, not government regulation, which should be allowed to set petroleum pipeline rates."

Senator Wallop, noting that "the federal role in pipeline ratemaking is a vestige of government involvement initiated over four decades ago," stated that the effort on behalf of rate deregulation "recognizes that competition in the petroleum pipeline industry has reached the point where government regulation of ratemaking no longer makes sense from either a public policy or economic perspective."

Two days later, addressing the same issue on the House side, Representative Synar, a member of the House Energy and Commerce Committee, summed up the arguments briefly but cogently, remarking, "Where there is no need for regulation, there is no satisfactory way to regulate."

This brings me to a brief discussion of the opportunity, to which I previously referred, that this Congress has to extricate the oil pipeline industry from its present regulatory nightmare.

To get out of this administrative morass and to preserve a viable and healthy industry, the Interstate Commerce Act should be amended to remove administrative authority to set or suspend rates for oil pipelines. All other safeguards of the Act ensuring nondiscrimination and right of access, such as filings of tariffs and employment of reasonable regulations and practices, would be retained.

Consequently, I urge you to pass S. 1626 as introduced by Senator Don Nickles.

An administrative solution is not feasible because it cannot provide the industry with the certainty needed for long-term planning. Petroleum pipelines need the flexibility to set their rates in order to respond to present economic uncertainties and extraordinary inflation. Petroleum pipelines must be able to earn returns that will attract the billions of dollars from financial markets, where interest rates are at an unprecedented level, to build new lines and expansions necessary to the national economic well-being.

It is important to realize that all of the negative factors associated with regulation by FERC, work in direct opposition to our nation's energy needs and goals at a time when increased productivity and the removal of regulatory burden is an important national goal. Moreover, the increasing intervention in the free marketplace by FERC is taking place at a time when the regulatory burden on other industries is being significantly reduced to allow maximum utilization of market forces in the setting of rates and to allow the greatest direction of time and expense to increased productivity.

The removal of government controls over rate levels does not mean that the petroleum pipeline industry then will be totally free from constraints.

Other very real market constraints exist. Today's pipeline industry is extensive and shippers have multiple options to serve their transportation needs. Intramodal and intermodal competition, as well as shipper's exchanges, make virtually every pipeline a potential competitor with every other pipeline and other forms of transportation used to ship petroleum. In MAPCO's case, since our Mid-American Pipeline system was constructed -- from the producing areas of the Southwest to the upper Midwest market area -- nine directly competitive pipelines have entered our service area to compete with us.

Moreover, the marketplace exercises further control over rates by virtue of the fact that the ultimate markets for petroleum products transported through pipelines, are themselves controlled by competition.

The impact of rate deregulation on the consumer would be negligible. Based on testimony provided in the Williams Case, even if you were to double the earnings of the pipeline industry, the average cost to the consumer would be less than a penny per gallon. I hasten to add that it would be extremely unlikely for a pipeline to double its earnings, due to real world competitive factors -- including the existence of a company like MAPCO.

Under S. 1626, FERC would continue to regulate common carrier obligations and enforce the legal proscription of discriminatory or preferential treatment of shippers by any pipeline company.

Finally, oil pipelines are not now, and would not be under S. 1626, exempt from the antitrust laws.

Therefore, built into the marketplace and the legislation before you are adequate constraints on the oil pipeline industry. These constraints, in contrast to the artificial constraints of FERC regulation, permit a businessman to make economic decisions with some certainty based on an analysis of the marketplace instead of the often irrational and interminable machinations of a federal bureaucracy.

Rate deregulation would foster rather than destroy time-established competitive relationships. It would facilitate rather than hamper our ability to attract capital.

In contrast, continued regulation carries with it the threat of a rate of return system unable to keep up with inflation -- as the gas pipeline and public utilities are proving. We have to be able to at least partially meet the demands of investors for inflation protection.

As the founder of a sizable independent pipeline, the bottom line for me is a plea to this Congress -- don't make it impossible for some other entrepreneur to start and operate such an enterprise in the years ahead because if you do, the shipping public, the consumer, and the nation's petroleum industry will be the loser.

To permit more burdensome and restrictive regulation of this industry will make the creation and development of independent pipeline systems such as MAPCO no longer attractive. It will create a disincentive for pipelines, particularly independents, to stay and grow in this business.

Someone may still build pipelines, but it won't be MAPCO. And those pipelines will be built by an industry growing less and less competitive, serving consumers who must look to the discretion of bureaucrats for, at best, a portion of the protection they now enjoy from free and open competition.

I urge you to support and pass S. 1626.

Senator **Nickles**. Thank you very much, Mr. Thomas. Mr. Roper?

STATEMENT OF JOHN DEE ROPER, EXECUTIVE VICE PRESIDENT, KOCH REFINING CO.

Mr. **Roper**. Senator, as I am representing Koch, I have just one thing to say. Obviously you are in favor of the deregulation that would apply to our business.

Senator **Nickles**. Does Koch have an independent refinery?

Mr. **Roper**. We have independent refineries.

Senator **Nickles**. Are you a member of the Independent Refiners Association?

Mr. **Roper**. No, we are not a member of that association. We are a shipper. We are a carrier, and we are a shipper more often than we are a carrier, but I would say that the most important thing I could add in terms of the total picture is an issue that was raised by Mr. Butler this morning and in his previous testimony before the House, and that is that independent producers would somehow suffer by deregulation.

Let me tell you. I have developed three reasons for why that is not so, but the most important one is that as the largest independent crude purchaser in Oklahoma and Kansas as well, we know that independent producers have no difficulty at all getting the crude to the market. The market problem if there is one is not for the independent producer, and you have heard this on standby controls about independent refiners worrying about how they are going to compete for their domestic production, how they are going to get it to the refinery.

Well, if there is a problem, it is getting, with only 8.6 million barrels of production in the United States, and capacity of 16 million barrels a day, the big problem is to get the production to the market, and with the independent producer, that is just not so. The independent is not going to have any problems with deregulation.

Moreover, the type of lines and gathering system we are talking about that gather the lines for independent producers are not going to be affected by this legislation. It is not interstate lines.

[The prepared statement of Mr. Roper follows:]

John Dee Roper
Manager of Government Relations

KOCH
INDUSTRIES INC.

STATEMENT

of

JOHN DEE ROPER

on behalf of

KOCH INDUSTRIES, INC.

on

INTERSTATE OIL PIPELINE DEREGULATION (S. 1626)

before the

ENERGY REGULATION SUBCOMMITTEE
of the
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

Washington, D.C.

May 21, 1982

Executive Offices: Post Office Box 2256 • Wichita, Kansas 67201 • Telephone 316 / 832-5273

My name is John Dee Roper. I am Executive Vice President for Koch Oil Company and Koch Refining Company.

Koch Refining Company is an independent crude oil refiner with a current capacity of around 200,000 barrels a day. Koch's refineries are located in St. Paul, Minnesota, and in Corpus Christi, Texas. Koch Oil Company is a large independent crude oil reseller.

In total, Koch Industries, with all of its subsidiaries and divisions, handles, either as a shipper or carrier, in excess of 1.2 million b/d. Of this total, approximately 85% is moved over common carrier facilities owned by third parties.

Koch welcomes the opportunity to testify in favor of the economic deregulation of petroleum pipelines. In order for the Committee to better understand Koch's position, it may be helpful to describe briefly our operations and our experience with oil pipelines.

I. Koch's Operations and Pipeline Experience

A. Access to Refinery Feedstocks

1. St. Paul Refinery

Koch's refinery at St. Paul, Minnesota, has historically been supplied with Canadian crude oil which is transported over the InterProvincial, Lakehead, and Minnesota pipelines. Those three pipelines are all regulated common carrier pipelines. The InterProvincial pipeline is owned and operated largely by major oil companies and regulated by the National Energy Board ("NEB") of Canada.

Lakehead pipeline is owned by InterProvincial pipeline and is regulated by the Federal Energy Regulatory Commission ("FERC").*/ Koch holds a majority interest in the Minnesota pipeline, which is also regulated by FERC. Koch's only pipeline supply of Canadian oil is via the InterProvincial or Lakehead lines.

Koch's St. Paul refinery is also capable of receiving crude oil from North Dakota over the Portal pipeline, which is a third-party common carrier pipeline, and from the south over the Wood River pipeline. The Wood River pipeline can only receive crude oil via barge or from other common carrier pipelines. Attachment A is a map showing the location of pipelines which have historically supplied Koch's St. Paul refinery.

2. Corpus Christi Refinery

Koch's Corpus Christi refinery has port facilities and third-party common carrier pipelines which transport its crude oil requirements. Most of the domestic crude received at the Corpus Christi refinery is carried over common carrier lines. Koch owns the Buffalo pipeline which is used principally to supply the Corpus Christi plant. Third-party common carrier lines that connect to Koch's Buffalo pipeline include the Exxon, Sun, Conoco, Coastal, and Champlin pipelines, which are shown on Attachment B.

---

*/ Koch has no ownership interest in either the InterProvincial or the Lakehead pipeline.

B. Koch's Pipeline Access as a Product and Gas Liquid Marketer

Koch Refining Company, Koch Fuels and Koch Hydrocarbon are involved in marketing refined petroleum products and gas liquids which they produce and purchase from third parties. As a result of our refining, processing, and marketing activities, we are a significant shipper over third-party carriers; we ship petroleum products over the Explorer, Williams, Colonial, Texas Eastern, Wolverine, Plantation, and West Shore pipelines and gas liquids over HTI, Mapco, and Seminole pipelines.

C. Koch's Pipeline Access as a Crude Oil Reseller

Koch Oil Company is a large, independent purchaser, gatherer, and reseller of domestic crude oil. We have significant pipeline gathering systems and a number of trucks and barges. Koch as a reseller is able to serve both the producer and the refiner and must depend upon third-party common carrier facilities in order to perform its function.

Typically, Koch Oil receives oil and gas at the point where they are being produced; the production is then delivered by pipeline or truck to a common gathering point which usually connects with a common carrier pipeline facility regulated by either the state or FERC. At the gathering center, the oil purchased is batched and tendered for shipment in common carrier facilities normally owned by third parties. Approximately 95% of all the oil Koch purchases is transported via common carrier pipeline facilities owned and operated by a third party before it reaches the ultimate refiner customer. Attachment C is a drawing of a representative system showing the gathering and transportation services Koch provides to its customers as a crude oil reseller.

D. Koch's Assessment of Pipeline Operations

From the foregoing description of Koch operations, it can readily be seen that Koch has had extensive dealings with common carrier pipelines owned by others. We depend upon these facilities to meet our supply and marketing requirements. Throughout the years we have found the transportation segment of the oil industry to be competitive and tariff practices regarding tenders, batching, prorationing connections and terminalling to be fair. Based upon extensive, long-term dealings with these pipelines and the companies that own them and from our own experience as a carrier, we strongly support economic deregulation of all petroleum common carrier pipelines.

II. Support for Pipeline Deregulation

It is Koch's position that the free market is the best and most efficient regulator of the common carrier pipeline. We often become so accustomed to regulation we presume there must be a reason for it and no longer question if there is a need. Continued regulation of common carrier pipelines is a clear example of this type of thinking. Koch is therefore pleased that this Subcommittee is taking the time to examine this important issue. We agree with the approach taken by William F. Baxter, Assistant Attorney General, in his testimony before the House Subcommittee on Fossil and Synthetic Fuels, where he stated:

> Our approach to oil pipeline deregulation is based upon the premise that complete deregulation should, as quickly as possible, be the goal for this or any other industry unless those who support such regulation can show, first, that the firms to be regulated have significant monopoly power, and, second, that there is strong reason to believe that the benefits of regulation exceed the costs.*/

In the case of oil pipelines there is significant competition and a significant lack of monopoly power; we are unable to find any benefits of economic regulation; in fact, regulation is costly not only in terms of the reporting requirements it imposes but more importantly in the degree of uncertainty it creates for the pipeline industry.

I have observed for a number of years the discussion, testimony and arguments presented by carriers and shippers relative to fair value and rate of return. Thousands of pages of testimony and documentation have been assembled on this subject. The arguments set forth are counterproductive to everyone except the lawyers and economists on both sides.

---

*/ See Statement of William F. Baxter, Assistant Attorney General, Antitrust Division, Department of Justice, on H.R. 4488, before the Subcommittee on Fossil and Synthetic Fuels, Committee on Energy and Commerce, House of Representatives, (May 10, 1982) at 2.

With all the arguments, how is anyone able to assess whether an interstate pipeline project is a good investment. In today's regulated market there is no way to measure with certainty the likely rate of return of an interstate pipeline; there is a real disincentive for new projects, even if those lines can be justified on market economics and efficiencies.

Koch believes that deregulation will benefit both the industry and the consumer. However, before addressing these benefits, I would like to respond briefly to the most frequent arguments raised by the opponents of deregulation.

Opponents of economic deregulation have expressed three main concerns; first, they fear discrimination as a shipper/nonowner versus a shipper/owner; second, they fear becoming captive to a pipeline; and third, they desire to guard their vested interest if they now are connected with pipelines with tariffs set below market value. I would like to address these three concerns:

A. Discrimination

First, under the proposed legislation FERC would continue to enforce common carrier obligations and retain jurisdiction over discriminatory practices. Section 4(a) of S. 1626 (H.R. 4488) seeks only to repeal the authority to

> . . . suspend, determine, or prescribe rates, fares, or charges for the transportation of oil by pipeline.

Moreover, discrimination has never been a significant regulatory problem for either the ICC or FERC, and we know of no reason that rate deregulation should result in discrimination. Mr. Baxter suggested in his testimony that if rate deregulation can be justified because pipelines are competitive then access regulation should be eliminated as well. It is Koch's position that there is no need for access regulation as a "self-protective device" between shippers and carriers; we would, in fact, agree with Mr. Baxter that we should maximize deregulation without destroying the benefits of common carrier status.

Common carrier interstate oil pipelines have generally enjoyed the right of eminent domain conferred by the states. In addition, federal law requires a pipeline to be a common carrier in order to receive a federal river-crossing permit. In contrast, private or proprietary pipelines which generally are smaller, intrastate gathering systems do not enjoy the right of eminent domain. If Congress accepts rate and access deregulation, we recommend that Congress make clear that interstate pipelines may continue to hold themselves out to the public as common carriers as opposed to purely proprietary lines, and thereby retain those rights which are essential to new construction and operation, together with any additional rights which may be beneficial not only to pipeline shippers but to consumers as well.

B. Captive

Second, it is unusual for a single pipeline to serve as the only means of transporting oil to a refinery. Refineries are generally designed and located where acceptable feedstock can be reliably and economically obtained from several sources and by several modes of transportation. Oil can be shipped by pipelines, truck, rail, barge, and ocean tankers.

We have seen several refineries shut down for economic reasons, but I do not know of any instance where a closing was a result of the refinery being captive to a pipeline. If a pipeline exercises a monopoly power, makes a refinery captive and charges rates that force the refinery to cease operations, it, along with the refinery, becomes an unusable, wasting asset, because it also no longer can operate.

Actually, if a shipper/owner were to charge exorbitantly high rates to a nonowner, the shipper/owner could expect: (a) that exchanges would be used to supply the refinery; (b) a loss of business as a long-term consequence of construction of new or modification of old facilities; (c) receipt of similar treatment at other locations where it had no pipeline ownership; and (d) potential litigation on the basis of an antitrust violation.*/ The free market, as the regulator, would operate to minimize abusive tactics.

---

*/ While we believe that the operation of the free market will prevent rate abuses by pipeline owners and the owners who are also shippers on other lines, certain antitrust laws may well provide additional assurances against abuse. _See_ Section 5 of the Federal Trade Commission Act and Section 2 of the Sherman Antitrust Act.

Finally, carriers rely upon their good business reputations, and it is in their long-term best interest to maintain those reputations.

C. Vested Interests

Pipelines required to charge less than real market value for services are, in fact, providing a subsidy to the shipper. Each shipper who is so "protected" will naturally seek to maintain its vested interest in the subsidy. However, these subsidized tariffs generally do not benefit the consumer; subsidies distort the market and interfere with competition. We strongly believe that the market should be given the freedom to establish true value for services. Accordingly, such tariffs should be eliminated.

We would assume that pipeline companies in an unregulated atmosphere would attempt to recover the market value for their transportation services. In some instances this undoubtedly would result in an increase over the existing tariff which may be regulated at an artificially low level. If these artificially low tariffs are eliminated, a general shift in routes will follow. In fact, some pipelines will reduce their rates as their volumes increase. We believe these adjustments are highly desirable and will result in not only a more competitive but also a more efficient transportation system.

D. Concerns of Independent Producers

On May 10, 1982, Mr. C. M. Butler, III, Chairman of FERC, stated in his testimony before the House Subcommittee on Fossil and Synthetic Fuels that the interests of independent producers may be adversely affected by deregulation. Koch does not agree. In today's market independent producers have little or no difficulty locating a purchaser for their domestic crude oil and receiving a full posted price. Independent producers do not generally gather and transport their own oil to the refiner. Rather, they sell their production to companies like Koch who are "first purchasers", and those first purchasers gather the oil by pipeline, barge or truck for their own account or for resale.

As a first purchaser/reseller, Koch typically takes custody of the crude on the lease premises. We gather oil at a central gathering station in commercial quantities and then ship the oil, usually by common carriers owned by third parties, to independent refiners. As a "middle man," a first purchaser serving both the independent producer and the refiner, it is our opinion that pipeline deregulation will not significantly affect the wellhead price the independent producer receives. As noted by Leonard L. Coburn, Acting Director, Office of Competition, Department of Energy, in his testmony before the House Subcommittee on Fossil and Synthetic Fuels,*/ the average cost of transportation represents less than 2% of the wellhead price.

---

*/ See Statement of Leonard L. Coburn, Acting Director, Office of Competition, Office of Congressional, Intergovernmental and Public Affairs, Department of Energy, on "Department of Energy Organization Act Amendments of 1981" (H.R. 4488) before the Subcommittee on Fossil and Synthetic Fuels, Committee on Energy and Commerce, House of Representatives, (May 10, 1982) at 5.

> Pipeline tariffs in the lower 48 states average thirty cents to seventy cents per barrel compared to crude oil prices in the $30 to $35 per barrel range.

The principal effect of deregulation will be on the first purchasers who ship the crude, and we believe that that effect will be beneficial. Accordingly, as an independent first purchaser/reseller we would welcome deregulation and thus support S. 1626.

E. Benefits of Economic Deregulation

Economic deregulation will provide both the industry and consumer with a great many benefits.

First, a very important benefit to economic deregulation is freedom, freedom from bureaucratic red tape and freedom to make independent decisions in running one's business. This freedom I speak of is not just a feeling, but has real objective benefits to the industry and to the consumer. Freedom stimulates creativity and encourages competition and efficiency. Regulation deadens creativity. Business judgments become based upon regulatory concerns, rather than those of the market.

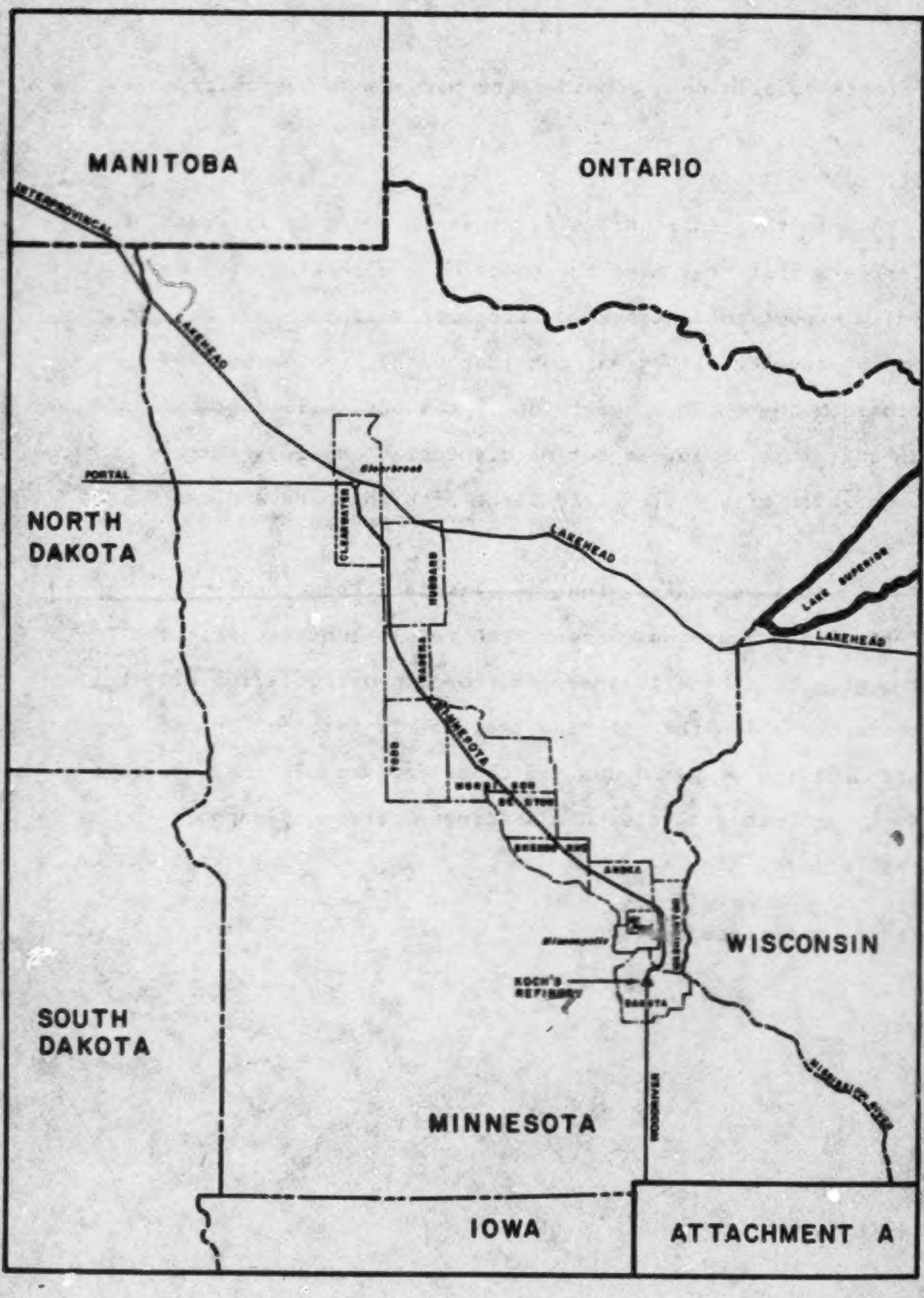
Second, deregulation will remove uncertainty and will encourage needed projects that will promote transportation efficiency by giving greater and perhaps more direct access to oil markets. As market access is expanded, competition will increase and exert downward pressure on consumer prices. Immediate deregulation of interstate oil pipelines will help the economy; it is consistent with the Administration's efforts to eliminate unneeded and burdensome economic regulation.

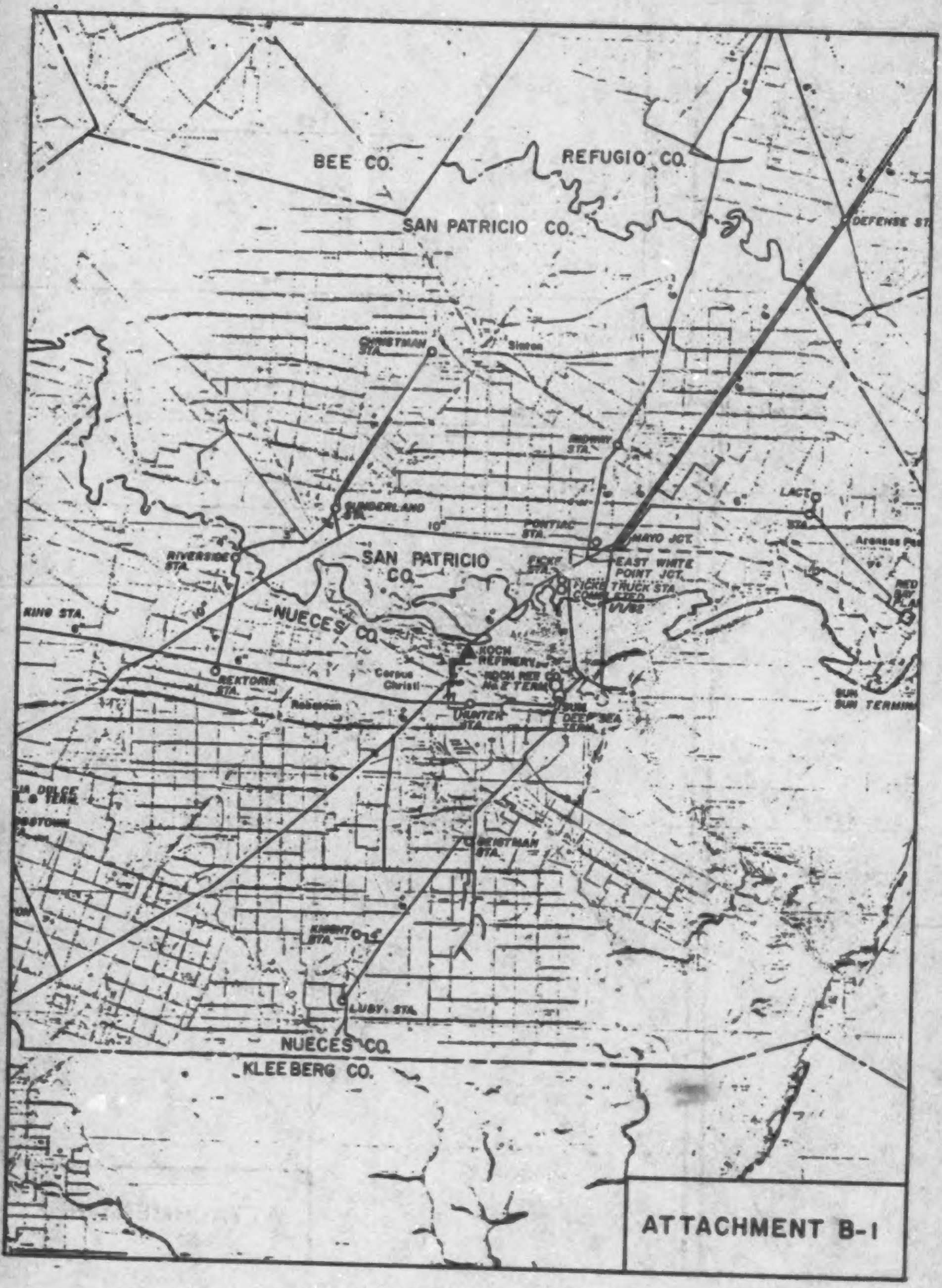
III. Conclusion

In the final analysis, it is in the best interest of carriers that they meet the needs of their shippers. We fully expect to continue to serve our shippers as a carrier, and we have equally great confidence that those who have provided common carriage to us in the past will continue to do so. This belief is not mere speculation; it is based upon years of commercial dealings with shippers and carriers.

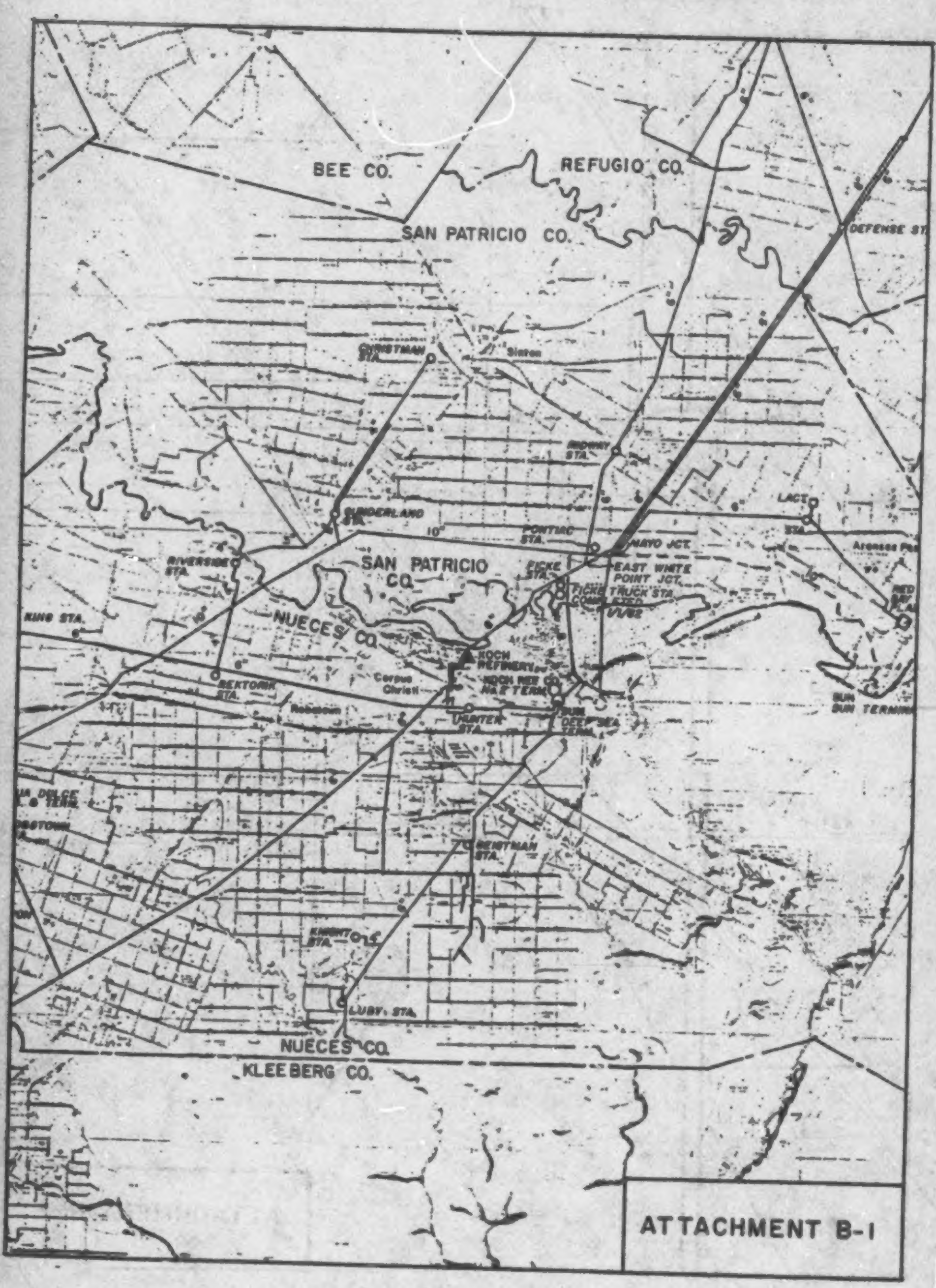
It is essential that we eliminate the economic uncertainties that the current FERC regulations impose. The two principal beneficiaries of economic deregulation will be those companies that provide real market services in the transporting of petroleum and those individuals they serve. Koch, as both a carrier and a shipper, strongly supports this effort.

Thank you very much.

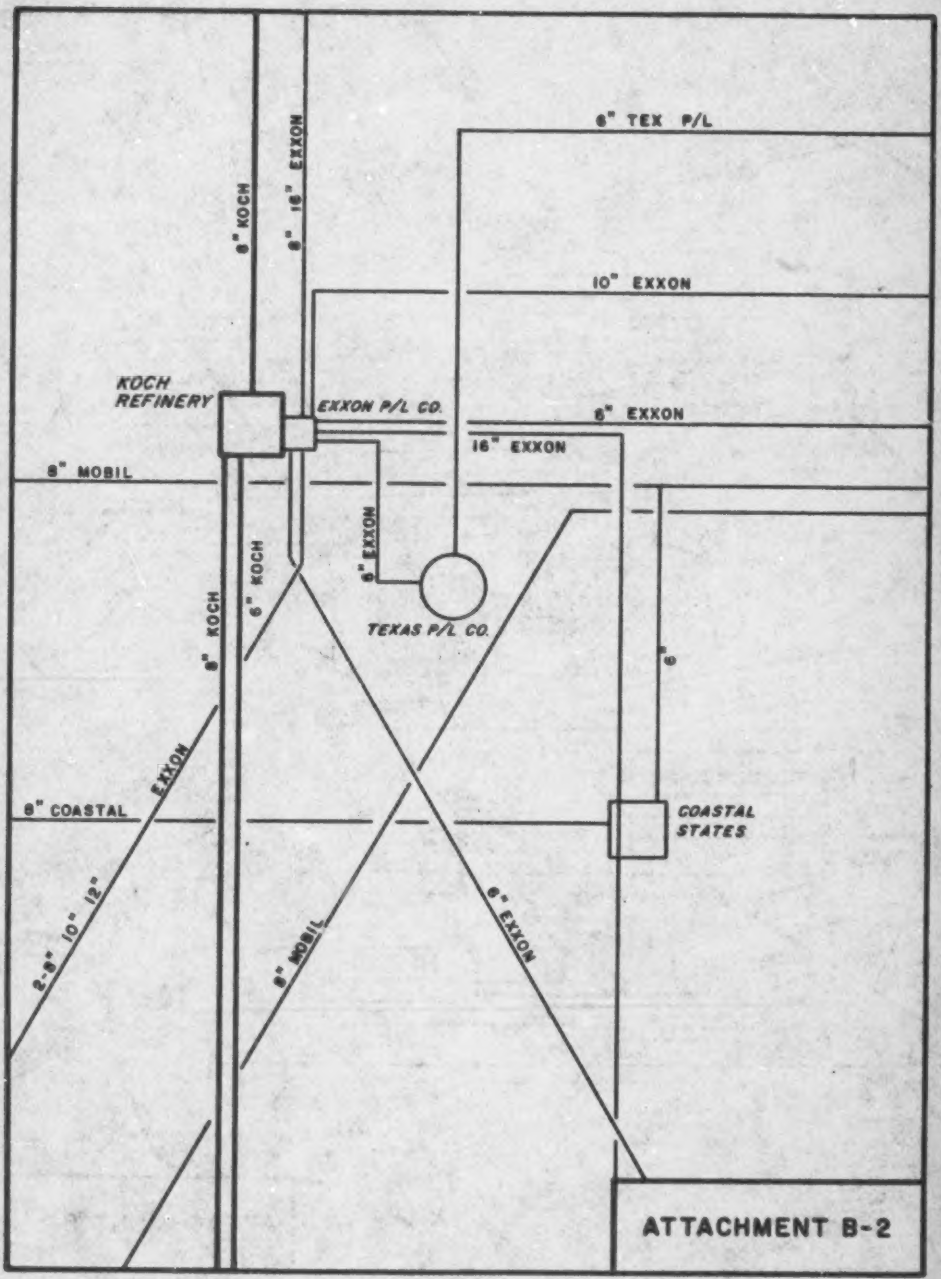

MANITOBA
ONTARIO
INTERPROVINCIAL
LAKEHEAD
PORTAL
Clearbrook
NORTH DAKOTA
CLEARWATER
HUBBARD
LAKEHEAD
LAKE SUPERIOR
LAKEHEAD
WADENA
MINNESOTA
TODD
MORRISON
BENTON
SHERBURNE
ANOKA
WASHINGTON
Minneapolis
WISCONSIN
KOCH'S REFINERY
DAKOTA
SOUTH DAKOTA
WOODRIVER
MISSISSIPPI RIVER
MINNESOTA
IOWA
ATTACHMENT A


BEE CO.
REFUGIO CO.
SAN PATRICIO CO.
DEFENSE ST
CHRISTMAN STA.
Sinton
MIDWAY STA.
SUNDERLAND STA.
10"
PONTIAC STA.
MAYO JCT.
LACT STA.
Aransas Pa
RIVERSIDE STA.
SAN PATRICIO CO.
FICKE STA.
EAST WHITE POINT JCT.
FICKE TRUCK STA. COMPLETED 1/1/62
RED BAY PLA
KING STA.
NUECES CO.
KOCH REFINERY
KOCH REF. CO. No 2 TERM.
REXTORIA STA.
Corpus Christi
Robstown
VIANTER STA.
SUN DEEP SEA TERM.
SUN SUN TERMIN
DULCE & TERM.
ROBSTOWN STA.
BEISTMAN STA.
KNIGHT STA.
LUBY STA.
NUECES CO.
KLEEBERG CO.

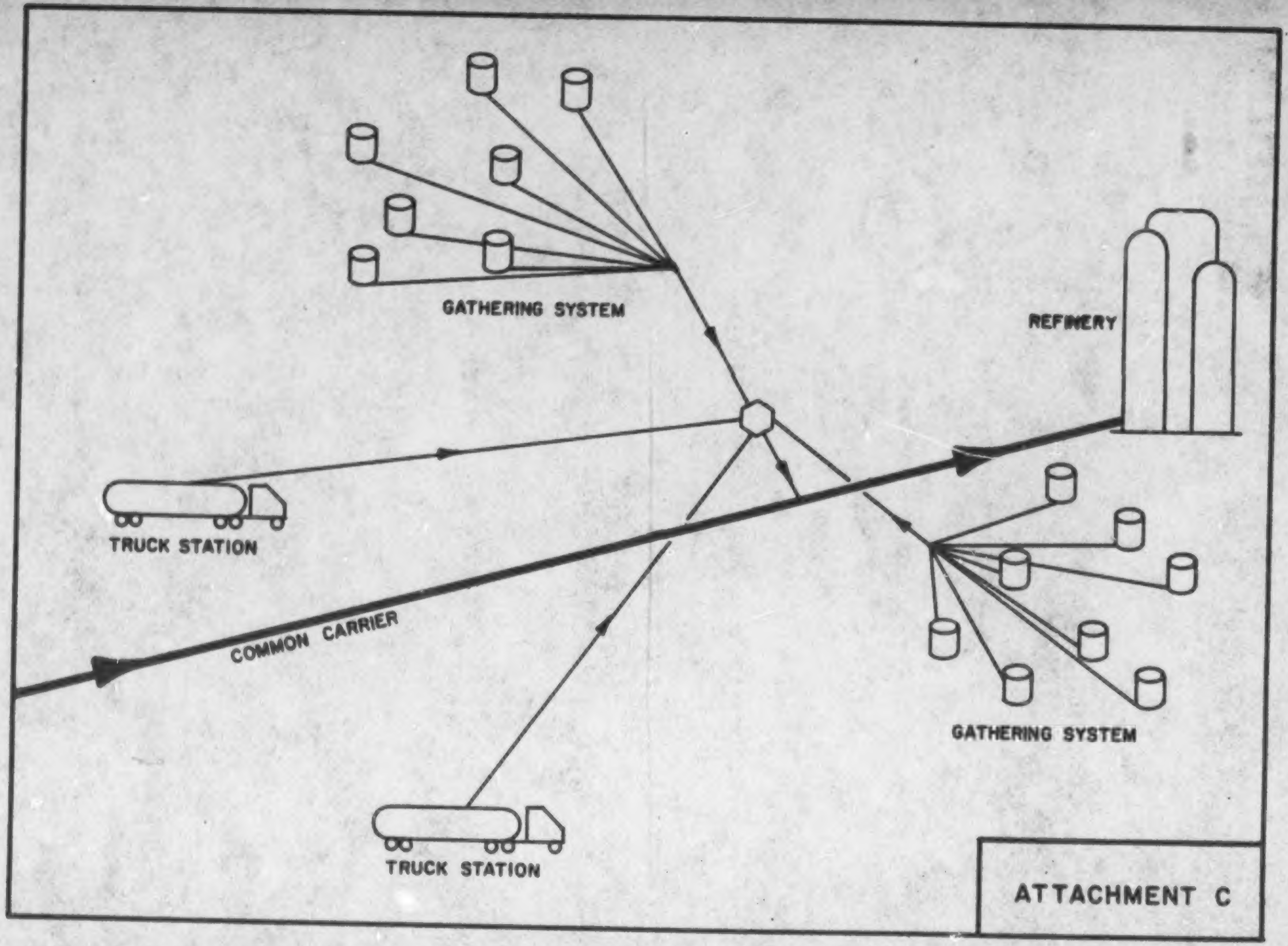
ATTACHMENT B-1


BEE CO.
REFUGIO CO.
SAN PATRICIO CO.
DEFENSE ST
CHRISTMAN STA.
Sinton
MIDWAY STA.
LACT STA.
Aransas Pa
SUNDERLAND STA.
10"
PONTIAC STA.
MAYO JCT.
RIVERSIDE STA.
SAN PATRICIO CO.
FICKE STA.
EAST WHITE POINT JCT.
FICKE TRUCK STA. COMPLETED 1/1/62
KING STA.
NUECES CO.
KOCH REFINERY
KOCH REF. CO. No. 2 TERM.
6"
Corpus Christi
REKTORIK STA.
Robstown
HUNTER STA.
SUN DEEP SEA TERM.
SUN
SUN TERMIN
RED
AGUA DULCE
& TERM.
ROBSTOWN
BEISTMAN STA.
KNIGHT STA.
LUBY. STA.
NUECES CO.
KLEEBERG CO.

ATTACHMENT B-1


8" TEX P/L
8" KOCH
8" 16" EXXON
10" EXXON
KOCH
REFINERY
EXXON P/L CO.
6" EXXON
16" EXXON
8" MOBIL
6" EXXON
6" KOCH
8" KOCH
TEXAS P/L CO.
6"
EXXON
8" COASTAL
COASTAL
STATES
2-8" 10" 12"
8" MOBIL
6" EXXON

ATTACHMENT B-2



GATHERING SYSTEM
REFINERY
TRUCK STATION
COMMON CARRIER
GATHERING SYSTEM
TRUCK STATION

ATTACHMENT C

John Dee Roper
Manager of Government Relations

KOCH
INDUSTRIES INC

SUPPLEMENTAL SUBMISSION

OF

JOHN DEE ROPER

on behalf of

KOCH INDUSTRIES, INC.

on

INTERSTATE OIL PIPELINE DEREGULATION (S. 1626)

before the

ENERGY REGULATION SUBCOMMITTEE
of the
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

May 28, 1982

Executive Offices: Post Office Box 2256 • Wichita, Kansas 67201 • Telephone 316 / 832-5273

My name is John Dee Roper. I am representing Koch Industries, Inc.

Koch has been in the oil business for the past 50 years. Koch owns and operates two refineries, one in St. Paul and the other at Corpus Christi, having a total capacity of about 200,000 b/d. Koch acts both as a carrier and as a shipper of refined products and gas liquids which it produces and purchases. We are a large independent crude oil first purchaser/gatherer for resale. Currently we handle, either as a shipper or carrier, in excess of 1.2 million b/d. Of this total, approximately 85% is moved over common carrier facilities owned by third parties.

Koch, as both a shipper and a carrier, welcomes the opportunity to testify in favor of the economic deregulation of petroleum pipelines.

I. Support for Pipeline Deregulation

Koch strongly believes that the free market is the best and most efficient regulator of the common carrier pipeline. Koch is therefore pleased that this Subcommittee is examining deregulation of oil pipelines.

Oil pipeline companies have significant competition and a significant lack of monopoly power.*/ We are unable to find any benefits of economic regulation; in fact, regulation is costly not only in terms of the reporting burden it imposes but more importantly in the degree of uncertainty it creates. Before addressing the benefits of deregulation, I would like to respond briefly to the most frequent arguments raised by the opponents of deregulation.

Opponents have expressed three main concerns: first, they fear discrimination as a shipper/nonowner versus a shipper/owner; second, they fear becoming captive to a pipeline; and third, they desire to guard their vested interest if they now are connected with pipelines with tariffs set below market value.

---

*/ Mr. John F. Anderson, President of Farmland Industries, Inc. and CRA, Inc., spoke about lack of competition in the pipeline industry. At page 10 of his statement he cited several pipelines which he alleges have no competition in servicing specific areas. He stated:

> The Chase Pipeline from Eldorado, Kansas with supply terminals in western Kansas and at Denver, Colorado, has no competition in servicing that area with product from Kansas and Oklahoma refineries.

Koch owns 50% of the Chase Pipeline and is the operator of the line. The Chase Pipeline is not monopolistic; rather, it was constructed to bring *additional* competition to the Denver market. The Kansas and Oklahoma refineries already had other means of transporting their supply to Denver, such as through exchanges or trucks. Construction of the pipeline provided the Kansas and Oklahoma refineries with yet another means of access to that market. Thus, the Chase Pipeline is presently only one of their available alternatives. *See* Testimony of John F. Anderson, President of Farmland Industries, Inc. and CRA, Inc. before the Subcommittee on Energy Regulation, Senate Committee on Energy and Natural Resources, on S. 1626, Department of Energy Organization Act Amendments of 1981, May 21, 1982, at p. 10.

A. Discrimination

First, under the proposed legislation FERC would continue to enforce common carrier obligations and retain jurisdiction over discriminatory practices. Discrimination has never been a significant regulatory problem for either the ICC or FERC, and we know of no reason that rate regulation should result in unlawful discrimination.

Mr. Baxter suggested in his testimony that if rate deregulation can be justified because pipelines are competitive then access regulation should be eliminated as well.

It is Koch's position that there is no need for access regulation as a "self-protective device" between shippers and carriers. We believe we should maximize deregulation without destroying the benefits of common carrier status.

Interstate oil pipelines, because of their common carrier status, have enjoyed the right of eminent domain conferred by the states. In addition, federal law requires a pipeline to be a common carrier in order to receive a federal river-crossing permit. If Congress accepts rate and access deregulation, we recommend that Congress make clear that interstate pipelines may continue to hold themselves out to the public as common carriers and thereby retain those rights which are essential to new construction and operation, together with any additional rights which may be beneficial not only to pipeline shippers but to consumers as well.

In his testimony before the Senate Subcommittee on Energy Regulation, Mr. Christopher DeMuth, of the Office of Management and Budget, agreed that if an industry is sufficiently competitive to justify rate deregulation, then retaining ancillary controls is "at best superfluous and at worst harmful." However, Mr. DeMuth also recognized that almost all pipelines have been constructed under the eminent domain powers of the several states and, therefore, even in light of decontrol must remain common carriers at common law.*/

B. Captive

Second, it is unusual for a single pipeline to serve as the only means of transporting oil to a refinery. Refineries are generally designed and located where acceptable feedstock can be reliably and economically obtained. I have described in my written testimony many of the alternatives available to shippers should they have difficulty from one particular pipeline and would be pleased to discuss those alternatives.

C. Vested Interests

Pipelines required by regulation to charge less than real market value for services are, in fact, providing a subsidy to the shipper. Each shipper who is so "protected" will naturally seek to maintain its vested interest in the subsidy. However, these subsidized tariffs generally do not benefit the consumer; subsidies distort the market and interfere with competition. We strongly believe that the market should be given the freedom to establish true value for services.

---

*/ Statement of Christopher C. DeMuth, Administrator for Information and Regulatory Affairs, Office of Management and Budget, and Executive Director, Presidential Task Force on Regulatory Relief, before the Subcommittee on Energy Regulation, Senate Committee on Energy and Natural Resources, May 21, 1982, at pp. 8 and 9.

D. Benefits of Economic Deregulation

Economic deregulation will provide both the industry and consumer with a great many benefits.

First, a very important benefit is freedom, freedom from bureaucratic red tape and freedom to make independent decisions in running one's business. This freedom I speak of is not just a feeling, but has real objective benefits to the industry and to the consumer. Freedom stimulates creativity and encourages competition and efficiency. Regulation deadens creativity; business judgments become based upon regulatory concerns, rather than market opportunities.

Second, deregulation will remove uncertainty and will encourage needed projects that will promote transportation efficiency by giving greater and perhaps more direct access to oil markets. As market access is expanded, competition will increase and exert downward pressure on consumer prices. Immediate deregulation of interstate oil pipelines will help the economy; it is consistent with the Administration's efforts to eliminate unneeded and burdensome economic regulation.

E. Concerns of Independent Producers

Mr. C. M. Butler III, Chairman of the Federal Energy Regulatory Commission, stated this morning that pipeline deregulation could be justified economically. However, he stated, "A much harder question is whether regulation limited to a relatively few pipelines would be justified on grounds of efficiency or fairness." He then referred to certain areas of the country in which pipelines may have significant monopoly power. In particular, he was concerned about small isolated producing areas which are likely to be served by only a single pipeline and thus may be adversely affected by deregulation. Koch does not agree.*/

First, in today's market independent producers have no difficulty locating a purchaser for their domestic crude oil and receiving a full posted price. There is no market problem for independent producers. If there is a problem, it is a problem for the refiner. Refiners have difficulty obtaining sufficient domestic crude oil to fulfill their refining requirements. As you are aware, the United States produces 8.6 million b/d of domestic crude oil and has refining capacity of over 16 million b/d. So as you can see there is a competitive fight over domestic connections and the independent producer is the beneficiary of that competitive fight.

---

*/ Statement of C. M. Butler, III, Chairman, Federal Energy Regulatory Commission, before the Subcommittee Natural Resources, May 21, 1982, at p. 11.

Second, independent producers generally transport their crude on intrastate gathering lines and sell their crude within the state of production. Most Oklahoma crude remains in Oklahoma; most Kansas crude remains in Kansas. Interstate pipeline deregulation will have virtually no effect on independent producers.

Third, independent producers do not generally gather their own oil and transport it to the refiner/purchaser. They sell their production to a first purchaser; it is the first purchaser, not the independent producer, who will be affected by deregulation. As the largest first purchaser in Oklahoma and Kansas, we believe that, to the extent deregulation will have any impact, it will be beneficial.

Therefore, we believe that interstate pipeline deregulation will not adversely affect independent producers.

II. Reimposition of Regulation

It has been suggested that conditional deregulation be implemented. If deregulation is subject to renewed regulation and is accompanied by standby regulations ready to be triggered at almost any moment, deregulation will be accompanied by great uncertainty. The advantage of business judgments dictating pipeline decisions will be lost. Shippers subject to conditional deregulation will also be reluctant to make market-based decisions because they will fear that under later review they may be deemed void. Conditional deregulation will result in preventing the full realization of the benefits of complete deregulation.

We strongly believe that there is no need for conditional deregulation, and it would be counter-productive. However, conditional deregulation is better than no deregulation and if we are to have conditional deregulation, then we urge that the conditions be stringent and clear. In his testimony before the Subcommittee, Christopher C. DeMuth, of OMB, stated "[T]he type of stand-by authority we support needs to be narrowly crafted to ensure that it does not become a device for reregulation. The Justice Department is presently developing a threshold test that could be useful in this respect. Under such an approach, shippers or other parties might be obliged to demonstrate that a pipeline substantially dominated a properly defined relevant market. If this burden was [sic] met, a pipeline owner could avoid the reimposition of regulation by showing that it nevertheless did not possess actual monopoly power, because of other circumstances or changes in market share over time."*/ If the burden is placed upon the shipper to show a significant monopoly abuse, the dampener on free market decisions would be minimized.

III. Conclusion

In conclusion, we fully expect to continue to serve our shippers as a carrier, and we have equally great confidence that those who have provided common carriage to us in the past will continue to do so. Immediate deregulation of interstate oil pipelines will help the economy; it is consistent with the Administration's efforts to eliminate unneeded and burdensome economic deregulation. Koch strongly supports this effort.

---

*/ Statement of Christopher C. DeMuth, supra, p. 7.

Senator Nickles. Can I cut you off there, if it would be permissible? I have just a couple of very quick questions because we only have a couple of moments, and I am positive there would be additional questions to be submitted.

Just briefly, Mr. Anderson and Mr. Dryer, you both testified against the legislation. Do you think the laws as they are right now need be changed in any way or do you think the regulatory morass that we are currently in, as is reflected in the 2,000 cases pending before FERC and it has been compounded dramatically over the last couple of years—do you think that the status quo is fine or do you think it should be changed?

Mr. Anderson. Mr. Chairman, there needs to be a lot of straightening out, we being in favor of a system that has some regulatory check, that has been tested in a court case.

This situation these past 11 or 12 years, nobody has enjoyed that.

Senator Nickles. Let me ask you one additional thing, if you know of some changes, if you have some suggestions? Let me repeat my statement earlier. I am very receptive, and we would like to receive inputs if you have some ideas how we can make it better through regulatory changes or through legislative changes besides the bill that I have introduced. I am very, very receptive to your input.

Have the regulations to date that are on the books now, have they saved you any money?

Mr. Anderson. Well, I suppose, but I don't think that they have been fair to both parties. It hasn't been fair to Williams Brothers or other people, and it really hasn't been fair to the shippers either. There has to be a better way to do that.

Senator Nickles. Does opposed mean that maybe it hasn't saved you any money?

Mr. Anderson. Well, I think, as compared to what you are proposing, if it was a——

Senator Nickles. Who has made money out of the existing law besides attorneys filing cases before FERC?

Mr. Anderson. I think Williams has made some money on their pipeline system. I am not sure.

Senator Nickles. Do the regulations, does the regulatory scheme—I have nothing against somebody making some money.

Mr. Anderson. It has been expensive to regulate the way it has been done; yes.

Senator Nickles. Would you advocate some change? I might make one additional comment. In noting the chart that Farmland had supplied, it showed the difference in the trucking and what I thought was three or four times the rate of the pipeline.

Is that due to the fact that pipelines have been successful, they have been competitive?

Mr. Anderson. Yes. We are very much in favor of that. We don't think that their rates should approach something like that or get closer to——

Senator Nickles. Have competitive factors kept those rates at that level or has it been the FERC?

Mr. Anderson. A combination of those two things.

Senator Nickles. I think that could be contested.

APPENDIXES

APPENDIX I

Responses to Additional Committee Questions

JAMES A. MCCLURE, IDAHO, CHAIRMAN

MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.

HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Honorable Jan W. Mares
Acting Deputy Under Secretary
Department of Energy
1st and Independence Avenue S.W.
Room 7A257
Washington, D.C. 20585

Dear Mr. Mares:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon J Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

MINORITY QUESTIONS FOR DOE ON S. 1626

1. Sec. Mares' statement said, "For all other pipelines that are deregulated, provisions should be made for the reimposition of regulation of an individual pipeline when it can be demonstrated that a pipeline has significant monopoly power. Because regulation is appropriate only where there is insufficient competition, the applicant should bear a meaningful burden of justifying reimposition of regulation."

a. Please provide the Committee with legislative language to effectuate the suggested policy.

b. What means would the Administration advocate using to determine "that a pipeline has significant monopoly power"?

c. Who would administer the test?

d. What criteria would be used to make the determination?

e. What means would the Administration advocate using to require the applicant to "bear a meaningful burden of justifying reimposition of regulation"?

f. If regulation were reimposed, would it be permanent? If not, what criteria would be used to make the determination to deregulate? If regulation were reimposed, could rederegulation occur? If so, how?

2. Sec. Mares' statement said, "While we are generally convinced that rate deregulation is appropriate, special situations may arise which warrant some different treatment. ... If so, a specific procedure to reimpose regulation could be utilized in a limited number of special cases."

a. Please provide the Committee with legislative language embodying the proposed "specific procedure to reimpose regulation."

b. Please provide the Committee with whatever documentation is available to the Department which would provide an example of or identify the type of special case envisioned by the testimony.

3. Sec. Mares' statement indicated that regulation is appropriate only where there is insufficient competition. If regulation were reimposed, the statement said, "The type of rate regulation used should not be the traditional form of rate regulation based upon the just and reasonable standard now used by FERC."

a. What type of rate regulation should be used?

b. What type of standard, other than the just and reasonable rate standard, should be used?

4. Sec. Mares' statement indicated that, "The standard that the aggrieved persons would have to prove should be a market-based test."

a. Please provide the Committee with legislative language embodying the proposed "market-based test" standard.

b. Please provide the Committee with whatever documentation or studies are available to the Department to provide the rationale for using the proposed "market-based test" standard.

5. Sec. Mares' statement indicated that in determining whether to reregulate a pipeline, "The rates of the pipeline in question should be compared with the rates of similar pipelines that were subject to competition."

a. Please describe in detail how much such a comparison would be made.

b. In some instances, the competitive shipper would not be another pipeline; rather it would be rail or water or truck transportation. Should the comparison proposed be limited to comparing pipeline rates with other pipeline rates, or should it compare the rates for competing modes of transportation?

c. If a pipeline does not have any competing pipeline as a competitive shipper, what justification is there for deregulating that pipeline's rates in the first place?

d. What would constitute a "similar pipeline" for purposes of comparison? Would size be the critical factor? Would destination be the critical factor? Would markets served be the critical factor? Would ownership be the critical factor? Please describe the criteria that would be used in making such a determination in some detail.

6. Would DOE support making all deregulated pipelines common carriers?

7. Would DOE support making all deregulated pipelines specifically subject to the antitrust laws?

8. Would DOE support making all deregulated pipelines subject to private treble damage suits for antitrust enforcement?

9. Would DOE support making all deregulated pipelines subject to suits by competing carriers for antitrust enforcement?

10. The Association of Oil Pipelines submitted a study to the Committee which indicates that the pipeline industry is workably competitive even if there is no pipeline in direct competition in the market served. Does DOE agree with all of the conclusions reached in the AOPL study? If not, where does the Department agree, and where does the Department disagree?

11. The landmark study on oil pipelines published by the American Petroleum Institute, U.S. Oil Pipe Lines, by George S. Wolbert, Jr., concluded that, "It is the general consensus that pipelines are by far the most economical means of large scale overland transportation for crude oil and products, clearly superior to rail and truck transportation over competiting routes, given large quantities to be moved on a regular basis. This has been true for many years; figures are readily available for 1964, when the typical long haul pipeline rate was 10 to 20 percent of the rail rate. More specifically, pipeline rates average about 1/5 of rail rates and about 1/20 of truck rates and pipelines can usually compete favorably with all marine transportation except for ocean-going, long-haul supertankers." (Pages 30-31)

a. Is this conclusion still accurate today?

b. If it is still accurate, what competitive pressure would there be for a pipeline to restrain the rate it charges for transportation so that the delivered price of the product would be below the delivered price for product delivered by a competing mode of transportation if the market is not served by another pipeline?

12. Please indicate which oil pipeline or pipelines serve each of the Standard Metropolitan Statistical Areas (SMSA's). In instances where the SMSA is served by only one oil pipeline, indicate what is the least expensive competing mode of transportation for oil serving the SMSA. For each SMSA, please indicate what the transportation rate is for transportation to the area by the oil pipeline serving the area, and what it is for the least expensive competing mode of transportation (in cents per 100 barrel miles).

13. Please indicate which oil pipeline or pipelines serve each of the petroleum refineries in the United States and U.S. Territories (listed in DOE/EIA Energy Data Report 0111(81)). In instances where the refinery is served by only one oil pipeline either for crude oil input to the refinery, or for product distribution, indicate what is the least expensive competing mode of transportation for crude oil to the refinery and for product distribution from the refinery. For each refinery, please indicate what the transportation rate is for transportation to the refinery by the crude oil pipeline serving that refinery, what the transportation rate is for product distribution from the refinery to each of the markets served, and what it is for the least expensive competing mode of transportation (in cents per 100 barrel miles).

14. Sec. Mares' statement said, "Entry conditions in the oil pipeline business are relatively easy and the two potential entry barriers of economies of scale and capital requirements, are relatively low. Thus, high concentration is undermined by the relative ease of entry into the industry."

a. Can the builder of an oil pipeline use Federal eminent domain authority to obtain a right-of-way?

b. What are the typical capital costs of a pipeline?

c. What percentage of total pipeline costs are capital costs?

d. How long does it take to build a major pipeline?

15. Sec. Mares' advocated abolition of oil pipeline regulation with a specific procedure whereby aggrieved persons would bear the burden of demonstrating the need for reimposition of regulation. His testimony states, "Of course, in such situations under the normal incentives of economics, entry of competition would be expected and the agency's authority should be limited with this in mind."

a. What does that mean?

b. Would the aggrieved person have to demonstrate that a competing pipeline will not be built?

c. Wouldn't the existing pipeline argue that the FERC should wait to see if a competing pipeline will be built?

d. How long would that take?

Department of Energy
Washington, D.C. 20585

July 21, 1982

Honorable Gordon J. Humphrey
Chairman, Subcommittee on Energy
  Regulation
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On May 21, 1982, Jan W. Mares, Acting Deputy Under Secretary, Department of Energy, testified before the Senate Energy and Natural Resources Subcommittee on Energy Regulation, on S. 1626, Oil Pipeline Deregulation.

Subsequent to this hearing, we received questions from Minority members of the Subcommittee. Answers to these questions are enclosed.

If you have any questions, please call Cathy Carey or Tom Pretorius of my staff on 252-4277. They will be happy to assist you.

Sincerely,

for Thomas H. Pretorius
Robert G. Rabben
Assistant General Counsel
for Legislation

Enclosure

cc: Honorable J. Bennett Johnston
Al Astrin
Howard Useem

POST-HEARING QUESTIONS

relating to the

MAY 21, 1982, HEARING

before the

SUBCOMMITTEE ON ENERGY REGULATION

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

Q.1. Sec. Mares' statement said, "For all other pipelines that are deregulated, provisions should be made for the reimposition of regulation of an individual pipeline when it can be demonstrated that a pipeline has significant monopoly power. Because regulation is appropriate only where there is insufficient competition, the applicant should bear a meaningful burden of justifying reimposition of regulation."

a. Please provide the Committee with legislative language to effectuate the suggested policy.

b. What means would the Administration advocate using to determine "that a pipeline has significant monopoly power"?

c. Who would administer the test?

d. What criteria would be used to make the determination?

e. What means would the Administration advocate using to require the applicant to "bear a meaningful burden of justifying reimposition of regulation"?

f. If regulation were reimposed, would it be permanent? If not, what criteria would be used to make the determination to deregulate? If regulation were reimposed, could rederegulation occur? If so, how?

A.1. The questions in 1. through 5. request legislative language to implement the policies espoused in DOE's testimony recommending the creation of a statutory scheme to reimpose regulation when necessary. The questions also request additional information concerning the administration of the mechanism, the criteria to be used in making any regulatory determination, and the form regulation should take if the agency finds that regulation is appropriate.

At this time we are not able to provide you with specific answers to these questions. While the Administration has developed a general position which strongly supports deregulation, the DOE, in conjunction with the Department of Justice and the Office of Management and Budget, is developing the details of the policies which DOE espoused at the hearing. This process, however, is time-consuming, since the issues are complex and require careful analysis to ensure that the best results are achieved. We are not prepared to submit statutory language at the present, but expect to be ready to present the full details on the Administration's position in the fall.

Q.2 Sec. Mares' statement said, "While we are generally convinced that rate deregulation is appropriate, special situations may arise which warrant some different treatment. ... If so, a specific procedure to reimpose regulation could be utilized in a limited number of special cases."

a. Please provide the Committee with legislative language embodying the proposed "specific procedure to reimpose regulation."

b. Please provide the Committee with whatever documentation is available to the Department which would provide an example of or identify the type of special case envisioned by the testimony.

A.2. Same as A.1.

Q.3. Sec. Mares' statement indicated that regulation is appropriate only where there is insufficient competition. If regulation were reimposed, the statement said, "The type of rate regulation used should not be the traditional form of rate regulation based upon the just and reasonable standard now used by FERC."

a. What type of rate regulation should be used?

b. What type of standard, other than the just and reasonable rate standard, should be used?

A.3. Same as A.1.

Q.4. Sec. Mares' statement indicated that, "The standard that the aggrieved persons would have to prove should be a market-based test."

a. Please provide the Committee with legislative language embodying the proposed "market-based test" standard.

b. Please provide the Committee with whatever documentation or studies are available to the Department to provide the rationale for using the proposed "market-based test" standard.

A.4. Same as A.1.

Q.5. Sec. Mares' statement indicated that in determining whether to reregulate a pipeline, "The rates of the pipeline in question should be compared with the rates of similar pipelines that were subject to competition."

a. Please describe in detail how much such a comparison would be made.

b. In some instances, the competitive shipper would not be another pipeline; rather it would be rail or water or truck transportation. Should the comparison proposed be limited to comparing pipeline rates with other pipeline rates, or should it compare the rates for competing modes of transportation?

c. If a pipeline does not have any competing pipeline as a competitive shipper, what justification is there for deregulating that pipeline's rates in the first place?

d. What would constitute a "similar pipeline" for purposes of comparison? Would size be the critical factor? Would destination be the critical factor? Would markets served be the critical factor? Would ownership be the critical factor? Please describe the criteria that would be used in making such a determination in some detail.

A.5. Same as A.1.

Q.6 Would DOE support making all deregulated pipelines common carriers?

A.6. The DOE supports removing common carrier status from all deregulated pipelines. While S. 1626 is directed only toward the elimination of rate regulation, other aspects of regulation must be addressed. Common carriage implies a host of requirements that could lead directly back to rate regulation. For example, common carriage normally requires nondiscrimination among shippers in the rates charged. If some form of discrimination did exist, the regulatory agency, FERC, would have to inquire into whether the discrimination was appropriate. How would it do this? Merely looking at the initial difference in rates may not be enough. An examination of costs, rates of return, etc., may be required, putting the FERC back into the business of rate regulation.

Q.7. Would DOE support making all deregulated pipelines specifically subject to the antitrust laws?

A.7. Deregulated pipelines automatically would become subject to the antitrust laws; however, DOE would support making all deregulated pipelines specifically subject to the antitrust laws, if clarifying language was necessary. All industries that are not regulated are subject to the antitrust laws. There is no reason why oil pipelines should not be subject to them as well.

Q.8 Would DOE support making all deregulated pipelines subject to private treble damage suits for antitrust enforcement?

A.8. Deregulated pipelines automatically would become subject to the antitrust laws; however, DOE would support making all deregulated pipelines subject to private treble damage suits for antitrust enforcement if clarifying language was necessary. Again, other industries that are not regulated are subject to private antitrust enforcement and to treble damage liability if found liable in civil antitrust suits. There is no reason why oil pipelines, once deregulated should be treated differently from other nonregulated industries.

Q.9. Would DOE support making all deregulated pipelines subject to suits by competing carriers for antitrust enforcement?

A.9. Deregulated pipelines automatically would become subject to the antitrust laws; however, DOE would support making all deregulated pipelines subject to suits by competing carriers for antitrust enforcement if clarifying language was necessary. The same rationale in the answers to questions 7 and 8 applies here.

Q.10. The Association of Oil Pipelines submitted a study to the Committee which indicates that the pipeline industry is workably competitive even if there is no pipeline in direct competition in the market served. Does DOE agree with all of the conclusions reached in the AOPL study? If not, where does the Department agree, and where does the Department disagree?

A.10. The DOE does not endorse every detail of the Mitchell study; however, we agree with its general thrust, that is, by and large, the pipeline industry is competitive and should not be regulated.

The DOE agrees with the following general conclusions drawn by Mitchell. Pipelines compete with pipelines in the overwhelming number of markets providing rigorous rivalry in most instances. Pipelines compete with other modes of transportation, especially barges and tankers. As indicated in the answer to question 11, rates are similar for pipeline and water transportation. According to information provided by the Association of Oil Pipe Lines and relied upon by both Mitchell and DOE, barges and tankers account for 48 percent of all ton miles of refined products and 41 percent of all ton miles of crude oil. In addition, these same statistics, attached to the answer in question 11, indicate that in some circumstances trucks can compete with pipelines. For example, in many crude producing fields, truck transportation can match pipeline transportation. Also, where a refinery is located in a market served by a pipeline, distribution by truck from the refinery competes with truck distribution from the pipeline terminal.

Mitchell indicates that entry into the pipeline industry is relatively easy, citing the history of the industry as an example of pipeline proliferation. The DOE study, too, relies on this indicator as evidence of relatively easy entry, but expands upon entry in pages 40-46.

Mitchell diverges from the DOE study by focusing on whether rates are set by competition or by regulation. The DOE study does not examine that question, but reaches the same overall conclusion based upon a structural analysis.

Q.11. The landmark study on oil pipelines published by the American Petroleum Institute, U.S. Oil Pipe Lines, by George S. Wolbert, Jr., concluded that, "It is the general consensus that pipelines are by far the most economical means of large scale overland transportation for crude oil and products, clearly superior to rail and truck transportation over competing routes, given large quantities to be moved on a regular basis. This has been true for many years; figures are readily available for 1964, when the typical long haul pipeline rate was 10 to 20 percent of the rail rate. More specifically, pipeline rates average about 1/5 of rail rates and about 1/20 of truck rates and pipelines can usually compete favorably with all marine transportation except for ocean-going, long-haul supertankers." (Pages 30-31)

a. Is this conclusion still accurate today?

b. If it is still accurate, what competitive pressure would there be for a pipeline to restrain the rate it charges for transportation so that the delivered price of the product would be below the delivered price of the product delivered by a competing mode of transportation if the market is not served by another pipeline?

A.11.a. George Wolbert's study on oil pipelines states at pages 30-31 that pipeline rates, on average, are lower than truck and rail rates, compare favorably with all marine transportation, and are higher than ocean-going, long-haul supertankers. As a generalization, this statement still is accurate. It must be borne in mind, however, that Wolbert's statement uses averages. Elsewhere in Wolbert, and relying on other sources, rates for all modes of transportation fall within wide ranges. Attached to this response is a chart indicating a range of transportation rates from several sources. There is much overlap among rates.

It must also be borne in mind that despite the large differences in rates among the various modes, substantial amounts of both crude and product are carried by pipeline, water transports, and trucks. Each has advantages depending upon the locality, length of haul, etc. Therefore, merely examining rates may be misleading since in many circumstances there is intense competition among the various forms of transport. Attached is a breakdown of tons and ton miles of the various transport modes compiled by the Association of Oil Pipe Lines.

b. The competitive pressures can be substantial, even though the pipeline does not compete with other pipelines. First, barge transportation and coastal tanker transportation rates are in the same range as pipeline rates. Since the waterborne transportation industry is competitive, waterborne transportation, where it exists, can be effective competition to pipelines. Second, competition from other sources must be examined. For example, if a refinery is located in the area, the pipeline will have to compete with product produced locally. Local transportation, usually truck, is effective competition for very short distances, especially since local distribution from pipelines must rely on trucks also. Therefore, for this type of source competition, pipeline and truck costs must be aggregated when compared to the delivered price for refinery plus truck distribution.

Comparative Costs of Service

	Pipeline	Barge	Tanker	Truck	Rail
Piercey[1]					
cents/ton mile	0.17-0.60	0.15-0.60	--	3-5	2-7
cents/million BTU/100 miles	0.3-0.8	--	0.5	--	--
NET[2]					
cents/100 bbl miles	4-12	5-15	1-5	52-75	12-60
AOPL[3]					
cents/100 bbl miles	2.5-12	3-15	1-6	47-65	10-50
Wolbert[4]					
cents/100 bbl miles	2.5-12	4-15	1-6	52-75	12-60

---

[1] John Piercey, *The Pipeline Segment of the Domestic Petroleum Industry: Structure and Conduct*, (Univ. of Oklahoma, PhD Dissertation, 1978), pp. 106-112.

[2] Congressional Research Service, *National Energy Transportation*, Vol. I, p. 214, 1977. Printed by Senate Comm. on Energy and Natural Resources and Senate Comm. on Commerce, Science and Transportation, 95th Cong., 1st Sess. No. 95-15, 1977.

[3] Association of Oil Pipe Lines, *Pipeline Transportation*, pp. 32-35, 1976.

[4] George S. Wolbert, Jr., *U.S. Oil Pipe Lines* (American Petroleum Institute: Washington, D.C., 1979), p. 481.

ASSOCIATION OF OIL PIPELINES
1725 K Street, N.W.
Washington, D. C. 20006

SHIFTS IN PETROLEUM TRANSPORTATION

TABLE 2

TOTAL CRUDE PETROLEUM CARRIED IN DOMESTIC TRANSPORTATION AND PERCENT OF TOTAL CARRIED BY EACH MODE OF TRANSPORTATION

In Tons of 2,000 Pounds

Year	Total Crude Petroleum Carried	PIPELINES		WATER CARRIERS		MOTOR CARRIERS[1]		RAILROADS	
		Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total
1938	180,508,947	128,175,000	71.01	46,173,283	25.58	2,115,000	1.17	4,045,664	2.24
1943	240,730,423	176,835,000	73.46	31,129,833	12.93	7,875,000	3.27	24,890,590	10.34
1948	322,991,312	221,198,250	68.48	75,126,140	23.26	12,450,000	3.86	14,216,922	4.40
1953	376,860,595	283,379.400	75.19	70,585,701	18.73	19,012,642	5.05	3,882,852	1.03
1958	402,173,215	307,059,000	76.35	67,965,254	16.90	25,953,401	6.45	1,195,560	0.30
1963	468,083,466	351,876,969	75.17	83,235,525	17.78	32,189,676	6.88	781,296	0.17
1968	574,814,400	425,837,300	74.08	107,010,300	18.62	40,900,000	7.11	1,066,800	0.19
1970	615,273,800	457,156,700	74.30	116,300,900	18.90	40,900,000	6.65	916,000	0.15
1971	616,257,000	459,860,200	74.62	114,720,700	18.62	40,800,000	6.62	876,100	0.14
1972	643,739,000	487,606,700	75.75	103,672,800	16.10	51,000,000	7.92	1,459,500	0.23
1973	640,391,700	492,382,300	76.89	90,518,500	14.13	55,590,000	8.68	1,900,900	0.30
1974	620,599,600	464,272,400	74.81	83,580,000	13.47	70,043,000	11.29	2,704,200	0.43
1975	611,616,700	454,690,000	74.34	77,887,000	12.74	76,207,000	12.46	2,832,700	0.46
1976	608,630,800	458,508,800	75.33	75,210,000	12.36	72,625,500	11.93	2,286,500	0.38
1977	636,774,800	460,132,800	72.26	84,816,600	13.32	89,692.500	14.09	2,132,900	0.33
1978	685,081,200	447.552,900	65.33	145,987,400	21.31	89,558,000	13.07	1,982,900	0.29
1979	690,398,700	437,135,400	63.32	148,853,300	21.56	102,973,800P/	14.91	1,436,200	0.21

1 The amounts carried by motor carriers are estimates.

P/Preliminary

ASSOCIATION OF OIL PIPELINES
1725 K Street, N.W.
Washington, D. C. 20006

SHIFTS IN PETROLEUM TRANSPORTATION

TABLE 1

TOTAL CRUDE PETROLEUM AND PETROLEUM PRODUCTS CARRIED IN DOMESTIC TRANSPORTATION AND PERCENT OF TOTAL CARRIED BY EACH MODE OF TRANSPORTATION

In Tons of 2,000 Pounds

Year	Total Crude And Products Carried	PIPELINES		WATER CARRIERS		MOTOR CARRIERS[1]		RAILROADS	
		Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total
1938	354,420,630	139,220,962	39.28	137,723,491	38.86	20,588,060	5.80	56,933,147	16.06
1943	473,733,623	196,391,443	41.46	115,995,425	24.49	76,471,500	16.14	84,875,255	17.91
1948	686,273,830	262,452,531	38.24	237,516,329	34.61	120,897,800	17.62	65,407,170	9.53
1953	862,695,394	359,142,335	41.63	273,476,440	31.70	184,625,431	21.40	45,451,188	5.27
1958	1,017,179,215	433,027,566	42.57	298,656,025	29.36	252,024,743	24.78	33,470,881	3.29
1963	1,196,002,789	521,149,137	43.57	335,611,860	28.06	312,583,106	26.14	26,658,686	2.23
1968	1,563,397,700	726,443,900	46.47	361,002,600	23.09	449,700,000	28.76	26,251,200	1.68
1970	1,685,741,800	790,241,700	46.88	402,667,900	23.88	466,100,000	27.65	26,732,200	1.59
1971	1,719,812,900	806,671,000	46.90	416,792,000	24.24	470,700,000	27.37	25,649,900	1.49
1972	1,843,449,500	876,248,100	47.53	426,603,200	23.14	513,500,000	27.86	27,098,200	1.47
1973	1,922,918,900	912,209,000	47.44	421,205,800	21.90	559,767,000	29.11	29,736,200	1.55
1974	1,874,062,100	884,648,000	47.20	407,448,200	21.74	552,036,000	29.46	29,929,900	1.60
1975	1,831,315,800	879,449,300	48.02	403,964,900	22.06	520,605,000	28.42	27,496,600	1.50
1976	1,945,234,800	934,109,100	48.02	425,157,400	21.86	559,241,200	28.75	26,727,100	1.37
1977	2,056,257,600 R/	986,083,100	47.95 R/	446,549,500	21.72 R/	595,042,900 R/	28.94 R/	28,582,100	1.39 R/
1978	2,123,645,600 R/	981,910,600	46.24 R/	502,796,600	23.68 R/	613,328,400 R/	28.88 R/	25,610,000	1.20 R/
1979	2,096,063,300	978,081,200	46.66	491,515,200	23.45	601,079,500 P/	28.68	25,387,400	1.21

1/The amounts carried by motor carriers are estimates.

P/Preliminary

R/Revised

ASSOCIATION OF OIL PIPE LINES
1725 K Street, N.W.
Washington, D. C. 20006

SHIFTS IN PETROLEUM TRANSPORTATION

TABLE 4

TOTAL CRUDE PETROLEUM AND PETROLEUM PRODUCTS CARRIED IN DOMESTIC TRANSPORTATION AND PERCENT OF TOTAL CARRIED BY EACH MODE OF TRANSPORTATION

In Billions of Ton Miles

Year	Total Crude And Products Ton Miles	PIPELINES		WATER CARRIERS		MOTOR CARRIERS[1]		RAILROADS	
		Ton Miles	Percent Of Total	Ton Miles	Percent Of Total	Ton Miles	Percent Of Total	Ton Miles	Percent Of Total
1972	838.6	475.8	56.73	330	39.34	23	2.74	10	1.19
1973	843.8	507	60.10	296.8	35.18	25	2.96	14.8	1.76
1974	847.7R/	506	59.69R/	297	35.04R/	29.0R/	3.42R/	15.7	1.85R/
1975	846.7	507	59.88	298	35.20	27.6	3.26	14.1	1.66
1976	867.7R/	515R/	59.35R/	306.9	35.37R/	32.5	3.75R/	13.3	1.53R/
1977	923.4R/	546	59.13R/	333.3	36.09R/	29.6R/	3.21R/	14.5	1.57
1978	1,160.2R/	585.8	50.49R/	530.6	45.73R/	30.6R/	2.64R/	13.2	1.14
1979	1,174.8	608.3P/	51.78	522.9	44.51	30.1P/	2.56	13.5	1.15

[1] The amounts carried by Motor Carriers are estimates.

P/Preliminary.

R/Revised.

ASSOCIATION OF OIL PIPE LINES
1725 K Street, N.W.
Washington, D. C. 20006

SHIFTS IN PETROLEUM TRANSPORTATION

TABLE 3

TOTAL PETROLEUM PRODUCTS CARRIED IN DOMESTIC TRANSPORTATION AND PERCENT OF TOTAL CARRIED BY EACH MODE OF TRANSPORTATION
In Tons of 2,000 Pounds

Year	Total Petroleum Products Carried	PIPELINES		WATER CARRIERS		MOTOR CARRIERS[1]		RAILROADS	
		Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total	Tons Carried	Percent Of Total
1938	173,911,713	11,045,962	6.35	91,555,208	52.65	18,423,060	10.59	52,887.483	30.41
1943	233,003,200	19,556,443	8.39	84,865,592	36.42	68,596,500	29.44	59,984,665	25.75
1948	363,282,518	41,254,281	11.36	162,390,189	44.70	108,447,800	29.85	51,190,248	14.09
1953	485,834,799	75,762,935	15.59	202,890,739	41.76	165,612,789	34.09	41,568,336	8.56
1958	615,006,000	125,968,566	20.48	230,690,771	37.51	226,071,342	36.76	32,275,321	5.25
1963	727,919,323	169,272,168	23.25	252,376,335	34.67	280,393,430	38.52	25,877,390	3.56
1968	988,583,300	300,606,000	30.41	253,992,300	25.69	408,800,000	41.35	25,184,400	2.55
1970	1,070,468,000	333,085,000	31.12	286,367,000	26.75	425,200,000	39.72	25,816,000	2.41
1971	1,103,555,900	346,810,800	31.43	302,071,300	27.37	429,900,000	38.96	24,773,800	2.24
1972	1,199,710,500	388,641,400	32.39	322,930,400	26.92	462,500,000	38.55	25,638,700	2.14
1973	1,282,527,200	419,827,600	32.74	330,687,300	25.78	504,177,000	39.31	27,835,300	2.17
1974	1,253,462,500	420,375,600	33.54	323,868,200	25.84	481,993,000	38.45	27,225,700	2.17
1975	1,219,899,100	424,759,300	34.82	326,077,900	26.73	444,398,000	36.43	24,663,900	2.02
1976	1,336,604,000	475,600,300	35.58	349,947,400	26.18	486,615,700	36.41	24,440,600	1.83
1977	1,419,482,800 R/	525,950,300	37.05 R/	361,732,900	25.59 R/	505,350,400 R/	35.60 R/	26,449,200	1.86 R/
1978	1,438,564,400 R/	534,357,700	37.15 R/	356,809,200	24.80 R/	523,770,400 R/	36.41 R/	23,627,100	1.64 R/
1979	1,405,664,600	540,945,800	38.48	342,661,900	24.38	498,105,700 P/	35.44	23,951,200	1.70

1 The amounts carried by motor carriers are estimates.

2 Products pipelines move only light petroleum products - gasoline, heating and fuel oils, liquid petroleum gas, kerosene and jet fuel.

P/Preliminary.

R/Revised.

1. Tables 1, 2 and 3:

Oil Pipelines

Annual Petroleum Statement, "Crude Petroleum, Petroleum Products and Natural Gas Liquids," U.S. Department of Energy, Energy Information Administration, Tables 13 and 28.

Water Carriers

"Waterborne Commerce of the United States," Department of the Army, Corps of Engineers, Part 5, Table 2, annual.

Motor Carriers

Annual "Motor Carrier Statistical Summary," American Trucking Associations, Inc., Table VII-A and Annual Petroleum Statement "Crude Petroleum, Petroleum Products and Natural Gas Liquids," U.S. Department of Energy Information Administration, Table 13.

Railroads

"Freight Commodity Statistics," Class I Railroads, Department of Transportation, Federal Railroad Administration, Commodity Codes 13 and 291, Table A.8, annual.

2. Tables 4, 5 and 6:

Oil Pipelines

Annual Report to Congress, Interstate Commerce Commission, Appendix E, Table 3 and Annual Report (Form P) of oil pipeline companies to the Federal Energy Regulatory Commission.

Water Carriers

"Waterborne Commerce of the United States" Department of the Army, Corps of Engineers, Part 5, Table 4, annual.

Motor Carriers

Annual "Motor Carrier Statistical Summary," American Trucking Association, Inc., Table VII-A and Annual Petroleum Statement "Crude Petroleum, Petroleum Products, and Natural Gas Liquids," U.S. Department of Energy, Energy Information Administration, Table 13.

Railroads

Department of Transportation, Federal Railroad Administration, Statement TD-1, Carload Way Bill Statistics, annual. "Freight Commodity Statistics," Class I Railroads, Department of Transportation, Federal Railroad Administration, Commodity Codes 13 and 291, Table A.8, annual.

Q.12. Please indicate which oil pipeline or pipelines serve each of the Standard Metropolitan Statistical Areas (SMSA's). In instances where the SMSA is served by only one oil pipeline, indicate what is the least expensive competing mode of transportation for oil serving the SMSA. For each SMSA, please indicate what the transportation rate is for transportation to the area by the oil pipeline serving the area, and what it is for the least expensive competing mode of transportation (in cents per 100 barrel miles).

A.12. The DOE has relied upon information found in another study for the product pipelines or pipeline serving Standard Metropolitan Statistical Areas (SMSA's). We relied on the information in John A. Hansen, Competitive Aspects of the United States Petroleum Pipeline Industry: Implications for Regulatory Analysis, a doctoral dissertation for Yale University, 1980. The tables from Hansen are attached. While the work could be duplicated by the DOE, it was not since the major work done by the Department in this area was in the upstream markets. It was determined that since product markets are competitive, and alternative transportation markets are competitive, pipelines would have little market power in downstream markets.

As a result, DOE is unable to provide all the information sought in this question. Either it is unavailable, or it would take far longer than the time permitted to assemble the data that are available.

Table IV-5

Petroleum Products Pipelines in Markets with Population in Excess of 500,000 1/

Market	Companies
Akron, OH	Inland, Arco, Laurel, Sun, Sohio, Buckeye 2/
Albany, NY	None
Allentown, PA	Buckeye, Arco, Mobil, Laurel 2/, Sun 2/, Allegheny, Getty 2/, Southern 2/
Atlanta, GA	Colonial, Plantation, 1 refiner
Baltimore, MD 3/	Colonial
Birmingham, AL	Colonial, Plantation
Boston, MA 3/	Shell, Mobil, Esso-Standard
Buffalo, NY 3/	Arco, Mobil, 2 refiners
Charlotte, NC	Colonial, Plantation
Chicago, IL 3/	Badger, West Shore, Amoco, Texas Eastern Transmission, Great Lakes, Shell, Mobil, Wolverine, Marathon, Texaco-Cities Service, Texas, Phillips, Explorer, Wabash, Hydrocarbon Transport, Arco, Buckeye, 7 refiners
Cincinnatti, OH	Sohio, Miami Valley, Trans Ohio, Texas Eastern Transmission, 1 refiner
Cleveland, OH 3/	Buckeye, Sohio, Arco, Inland, Sun, Laurel
Columbus, OH	Arco, Ohio River, Buckeye, Inland (currently inactive), Ashland 2/
Dallas, TX	Gulf, Arco, Explorer, American Petrofina, Exxon, Texas, 1 refiner

Market	Companies
Dayton, OH	Inland, Ohio River, Buckeye, Miami Valley, Texas Eastern Transmission
Denver, Co	Phillips-Shamrock, Medicine Bow, Wyco, Chase, 2 refiners
Detroit, MI 3/	Wolverine, Buckeye, Sun, Arco, Amoco, 1 refiner
Flint, MI	Buckeye
Ft. Lauderdale, FL 3/	Everglades
Grand Rapids, MI	Texaco-Cities Service, Wolverine, Marathon
Greensboro, NC	Plantation, Colonial
Greensville, SC	Plantation, Colonial
Hartford, CT	Mobil, Jet Lines
Houston, TX 3/	Colonial, Dixie, Pinto, Dupont, Exxon, Coastal States, Phillips, Shell, Tuloma, Texas Eastern Transmission, Mobil, Arco, Wanda, Marathon, Bayou, Diamond Shamrock, Sante Fe, Explorer, Amoco, Seadrift, 9 refiners
Indianapolis, IN	Buckeye, Marathon, Shell, Williams, Amoco, Texas Eastern Transmission, Indiana Farm Bureau
Jacksonville, FL 3/	None
Kansas City, MO	Amoco, Arco, Williams, Phillips, Mobil, MAPCO, 2 refiners
Los Angeles, CA 3/	Southern Pacific, Mobil, Arco, Phillips, Shell, San Diego PL, Calnev 2/, Union, Getty, Gulf, GATX, Golden Eagle, SoCal, LADW&P, 17 refiners

Market	Companies
Louisville, KY	Marathon, Kentucky PL, 1 refiner
Memphis, TN 3/	Sun
Miami, FL 3/	Standard Transmission, Everglades
Milwaukee, WI 3/	West Shore
Minneapolis, MN	Williams, Amoco, Great Northern, Hydrocarbon Transmission, 2 refiners
Nashville, TN	Colonial
New Orleans, LA 3/	Collins, Gulf, Mobil, Shell, UCAR, 3 refiners
New York, NY 3/	Colonial, Harbor, Sun, Tidewater Pipe, Long Island, 3 refiners
Norforlk, VA 3/	Colonial
Oklahoma City, OK	Continental, Champlin, Mobil
Omaha, NE	Williams, National Coop 2/, Amoco, Mobil, Gulf Central, MAPCO 2/
Orlando, FL	Central Florida
Philadelphia, PA 3/	Colonial, Gulf, Harbor, Sohio, Mobil, Arco, Sun, National Transit, Laurel, Allegheny, Texas, 6 refiners
Phoenix, AZ	Southern Pacific
Pittsburgh, PA	Allegheny, Sun, Mobil, Buckeye, Laurel, Arco
Portland, OR 3/	Olympic, Southern Pacific
Providence, RI 3/	Mobil, Shell
Richmond, VA 3/	Colonial, Plantation
Rochester, NY 3/	Buckeye, Arco, Mobil
Sacramento, CA	Southern Pacific, SoCal

Market	Companies
Salt Lake City, UT	Chevron, Pioneer, 3 refiners
San Antonio, TX	Texas, Casa, Exxon, Mobil, 2 refiners
San Diego, CA 3/	San Diego PL
San Francisco, CA 3/	SoCal, Shell, Union, Southern Pacific, 6 refiners
Scranton, PA	Mobil, Buckeye, Sun, Getty 2/, Arco
Seattle, WA 3/	Olympic, 3 refiners
Springfield, MA	Mobil, Jet Lines
St Louis, MO 3/	Continental, Gulf Central, Arco, Williams, Marathon, Shell, Phillips, Explorer, 4 refiners
Syracuse, NY	Buckeye, Mobil, Sun
Tampa, FL 3/	Central Florida
Toledo, OH 3/	Buckeye, Sun, Wolverine, Inland, Arco, Sohio, 3 refiners
Tulsa, OK	Continental, Explorer, Arco, Texaco-Cities Service, Sun, Williams, MAPCO, 5 refiners
Youngstown, OH	Sun, Laurel, Sohio, Buckeye, Arco, Ohio P L Co. 2/
Washington, DC 3/	Colonial, Plantation

Source: American Petroleum Institute, Products Pipe Line Maps of the United States and Southern Canada (API: Wash., D.C., 1977)

1/ Markets are generally the Standard Metropolitan Statistical Area containing the named place.

2/ Firm located on the fringe of a market area - within 30 miles.

3/ Market located near water transportation.

Q.13. Please indicate which oil pipeline or pipelines serve each of the petroleum refineries of the United States and U. S. Territories (listed in DOE/EIA Energy Data Report 0111(81)). In instances where the refinery is served by only one oil pipeline either for crude oil input to the refinery, or for product distribution, indicate what is the least expensive competing mode of transportation for crude oil to the refinery and for product distribution from the refinery. For each refinery, please indicate what the transportation rate is for transportation to the refinery by the crude oil pipeline serving that refinery, what the transportation rate is for product distribution from the refinery to each of the markets served, and what it is for the least expensive competing mode of transportation (in cents per 100 barrel miles).

A.13. The DOE analysis used 39 refining markets to determine the competitiveness of this segment of the industry. These 39 markets comprise 98 percent of the refining capacity of the U. S. The following tables indicate the market, the pipelines serving the market, the percent of capacity each pipeline comprises of the market, and which markets are served by water transportation. The DOE does not have transportation rate information available to it for transportation by modes other than pipeline. Pipeline rates are available in rate service books; however, comparable transportation data are not available for barge and tanker. As a result, specific rate comparisons cannot be made. Undertaking to collect waterborne transportation data would be expensive, time-consuming and beyond present resources.

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
1. Port Arthur, TX Lake Charles, LA [PA = Port Arthur LC = Lake Charles B = Beaumont PN = Port Neches]	Gulf	32	Sun Terminal	Lucas Sta.	720	24.85	Yes
	Texas	22	Sulphur, LA	PA	360	12.43	
	West TX Gulf	26	Wortham, TX	B	335	11.56	
	Continental	20	Texas PL, LA	LC	288	9.94	
	Mobil	20	Corsicana, TX	B	250	8.63	
	Cities Service	20	Sourlake, TX	LC	168	5.80	
	Mobil	16	Nederland, TX	B	150	5.18	
	Texas	20	Houston	PN (PA)	139	4.80	
	E. TX Main Line	12	Longview, TX	PA	63	2.17	
	Mobil	8, 12, 16	Sealy, TX	B	61	2.11	
	Pure	10	Longview, TX	B	50	1.73	
	Amdel	10	Midland, TX	PN	47	1.62	
	Sun	10	Nederland	Sour Lake	40	1.38	
	Texas	12	Sourlake	PA	38	1.31	
	Sun	8	Liberty, TX	Sourlake	37	1.28	
	Sun	10	Seabreeze, TX	Nederland	37	1.28	
	Neale	8	LA	PA	28	0.97	
	Gulf	3-10	Sourlake	Lucas Sta.	28	0.97	
	Gulf	8	Raywood Sta., TX	Sourlake	23	0.79	
	Gulf	8	Hankhamer, TX	Sourlake	12	0.41	
	Gulf	8	Sourlake	Lucas Sta.	12	0.41	
	Sun	8	Sourlake	Nederland	11	0.38	
					2897	100	
2. Houston, Texas City, TX [H = Houston TC = Texas City	Oiltanking of TX	24	Houston Ship Channel	Various Terminals	444	20.91	Yes
	Rancho	24	McCamey, TX	Mo. City Junction	385	18.13	
	Oiltanking	24	H.S.C.	Various	276	13.00	
	Exxon	20	Satsuma, TX	Baytown, TX	200	9.42	
	Arco	20	Corsicana, TX	H	170	8.01	
	Exxon	8-16	Satsuma, TX	Baytown, TX	95	4.47	
	Exxon	8, 16	Ingleside, TX	TC-Baytown	88	4.15	
	Texas-N. Mex	12	Midland	H	68	3.20	
	Texas	12	Wichita Falls	H	65	3.06	
	Phillips	12	Mo. City, TX	Sweeney, TX	63	2.97	
	Cities Service	12	Fauna, TX	Englewood, TX	60	2.83	
	Shell	10	Goodrich, TX	H	45	2.12	
	Exxon	8, 16	Ingleside, TX	TC-Baytown	44	2.07	
	Black Lake	8	LA	Mt. Belview, TX	32	1.51	
	Gulf	8	Lynchburg, TX	Mt. Belview	23	1.08	
	Texas	8	Humble, TX	H	21	0.99	
	Shell	12	Sheridan, TX	H	12	0.57	

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
	Texas	8	W. Columbia, TX	H	12	0.57	
	Shell	6	Hope, TX	H	9	0.42	
	Sun	6	Conroe, TX	Humble	6	0.28	
	Phillips	3	Choc. Bayou	Sweeney	5	0.24	
					2123	100	
3. Los Angeles, CA	NO DATA						Yes
4. Chicago, IL Hammond, IN [Chi = Chicago]	Lakehead	34	Clearbrook, MN	Chi	740	34.94	Negligible
	Chicap	26	Patoka, IL	Chi	490	23.14	
	Cushing-Chicago	22	Cushing, OK	Chi	305	14.40	
	Amoco	20, 12	Freeman, MO	Chi	257	12.13	
	Texaco-Cities Service		Patoka	Chi	161	7.60	
	Texaco-Cities Service	16, 12 (2)	Cushing	Chi	133	6.28	
	Texaco-Cities Service			Chi	32	1.51	
					2118	100	
5. Philadelphia, PA	NONE						Yes
6. Richmond, CA	NO DATA						Yes
7. Baton Rouge, LA [BR = Baton Rouge]	Texas	18	Houma, LA	Convent, LA	207	27.17	Yes
	Exxon	16	Grand Isle, LA	BR	200	26.25	
	Exxon	12, 20, 22	Shreveport, LA	BR	140	18.37	
	Exxon	16	South Bend, LA	BR	135	17.72	
	Exxon	12, 16	Liberty, MS	BR	80	10.50	
					762	100	
8. New Orleans, LA	Shell	20	Nairn, LA	Norco, LA	235	53.05	Yes
	Gulf	18	South LA	Alliance, LA	208	46.95	
					443	100	
9. St. Louis, MO [WR = Wood River]	Ozark	22	Cushing, OK	WR	325	38.69	No
	Capwood	22	Patoka, IL	WR	219	26.07	
	Platte	20	WY	WR	150	17.86	
	Amoco	12	TX and WY	WR	107	12.74	
	Shell	10	Cushing, OK	WR	39	4.64	
					840	100	

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
10. Corpus Christi, TX [CC = Corpus Christi]	Exxon	6, 10, 16	Various, TX	CC	210	45.06	Yes
	Amer. Petrofina	8, 10	Harboris, TX	Refugio Sta., TX	73	15.67	
	Exxon	12	Ingleside, TX	CC	50	10.73	
	Coastal States	8	Premont, TX	CC	48	10.30	
	Sun	10	Aqua Dulce, TX	Ingleside, TX	40	8.58	
	Mobil	8	Seelig, TX	CC	18	3.86	
	Sun	6-8	Seeligson, TX	CC	14	3.00	
	Mobil	6, 8	Tilden, TX	CC	13	2.79	
					466	100	
11. Linden, NJ	NONE						Yes
12. Ferndale, WA	Transmountain	16	Canada	Ferndale	305	100	Yes
13. Southeast, IN Southwest, IL	Capline	40	St. James, LA	Patoka, IL	1206	39.70	No
	Marathon	10, 20	Patoka	Martinsville, IL	336	11.06	
	Marathon	22	Martinsville	Lebanon, IN	315	10.37	
	Woodpat	22	Wood River	Patoka	251	8.26	
	Marathon	20	Patoka	Robinson, IL	174	5.73	
	Mobil	20	Corsicana, TX	Patoka	162	5.33	
	Texaco-Cities Service	18	Patoka	Wilmington, IL	161	5.30	
	Texas	10 (2)	Clay City, IL	Laurenceville, IL	104	3.42	
	Texas	12	Patoka	Clay City	89	2.93	
	Marathon		Stoy, IL	Robinson	60	1.97	
	Marathon			Stoy	48	1.58	
	Sohio	10	Salem, IL	Stoy	47	1.55	
	Pure	10	Noble, IL	Stoy	35	1.15	
	Texas	8	Salem	Clay City	25	0.82	
	Marathon	10	Brownstown, IL	Patoka	17	0.56	
	Marathon	8	Sondoval, IL	Patoka	8	0.26	
					3038	100	
14. Toledo, OH [T = Toledo]	Mid-Valley	22	Cygnet, OH	T	230	45.45	No
	Tecumseh	20	Chicago	Cygnet	117	23.12	
	Buckeye	16	Samaria, MI	T	87	17.19	
	Marathon	22	Cygnet	T	72	14.23	
					506	100	
15. Pascagoula, MS	Chevron	20	Empire, LA	Pascagoula	235	100	Yes

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
16. Ponca City, OK [PC = Ponca City]	Continental	12	Okla City, OK	PC	102	51.26	No
	Continental	12	Cushing, OK	PC	72	36.18	
	Wesco.	8	Cushing, OK	PC	25	12.56	
					199	100	
17. Kansas City, MO [KC = Kansas City]	Amoco	16	Freeman, MO	KC	131	57.71	No
	Phillips	14	Cushing	KC	96	42.29	
					227	100	
18. Cushing-Tulsa, OK [C = Cushing T = Tulsa]	Basin	24	Wichita Falls, TX	C	394	21.74	No
	Seaway	30	Freeport, TX	C	314	17.33	
	Texoma	30	Longview, TX	C	300	16.56	
	Amoco	16	Monroe, TX	C	280	15.45	
	Arco	8, 12, 18	Panova, OK	C	160	8.83	
	Amoco	10, 12	Healdton, OK	Drumright, OK	131	7.23	
	Texaco-Cities Service	10	Seminole, OK	T	61	3.37	
	Shell	10	Wichita Falls	C	46	2.54	
	Sun	12	C	W. Tulsa	43	2.37	
	Phillips	10	Pampa, TX	Yale, OK	40	2.21	
	Continental	8	Okla City	C	25	1.38	
	Texaco-Cities Service	10	Seminole	C	18	0.99	
					1812	100	
19. Wichita, KS [W = Wichita]	Osage	20	Cushing	W (El Dorado)	190	42.22	No
	Kaw	8, 10, 12	Norton, KS	Chase, KS	86	19.11	
	Mobil	8, 10	Chase	W	50	11.11	
	Jayhawk	10	McPherson, KS	W	43	9.56	
	Continental	8	Ponca City	W. Ark. City	25	5.56	
	Wesco		Cushing	W	22	4.89	
	Getty	10	El Dorado, KS	El Dorado, KS	20	4.44	
	Continental	8	Genesee, KS	W	14	3.11	
					450	100	
20. St. Paul, MN	Minnesota	16	Clearbrook, MN	St. Paul	180	62.94	No
	Williams	18	KS and IA	St. Paul	106	37.06	
					286	100	
21. Bakersfield, CA	NO DATA						No

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
22. Amarillo, TX	Phillips	12	Midland, TX	Borger, TX	98	54.14	No
	Phillips	8	Beaver, TX	Borger	23	12.71	
	Shamrock	8	Clawson, TX	McKee, TX	22	h2.15	
	Texas	8	Kingsmills, TX	Amarillo	21	11.60	
	Phillips	10	Cushing	Borger	17	9.39	
					181	100	
23. Lima, OH	Mid-Valley	22	MS	Lima	277	56.42	No
	Tecumseh	20	Chicago	Cygnet	117	23.83	
	Marathon	22	Robinson, IL	Lima	72	14.66	
	Sohio	12	Stoy, IL	Lima	25	5.09	
					491	100	
24. Midland-Odessa, TX [M = Midland]	Basin	20	Jal, NM	Wink-M	346	14.79	No
	Mesa	24	M	Colo. City Sta.	316	13.50	
	Amoco	16	Slaughter, TX	Monroe, TX	292	12.48	
	Exxon	18	Ector, TX	Crane, TX	140	5.98	
	Texas-NM	8, 10	Sundown, TX	M	108	4.62	
	Mobil	3-8, 12	Seminole, TX	M	108	4.62	
	Marathon	16	Iraan, TX	M	100	4.27	
	Gulf	2-8, 10	Goldsmith, TX	M	90	3.85	
	Shell	Mult.	Wink	McCamey, TX	90	3.85	
	Sun	8	Claremont, TX	Colo. City	90	3.85	
	Texas-NM		Monahans, TX	Crane	78	3.33	
	Gulf	3-10	Judkins, TX	M	69	2.95	
	Gulf	8, 10	Crane	M	61	2.61	
	Chevron	10	Snyder, TX	Wink	50	2.14	
	Mobil	10	Halley, TX	M	42	1.79	
	Arco	8	Wood, TX	M	40	1.71	
	Texas-NM	10	Jal, NM	Wink	34	1.45	
	Amoco	8-10	Post, TX	Monroe	34	1.45	
	Amer. Petrofina	10	Corpus Christi	Crane	26	1.11	
	Shell	6	M	Odessa	26	1.11	
	Cities Service	8	Foster, TX	M	24	1.03	
	Arco	8	Hobbs, NM	M	23	0.98	
	Chevron	10	Iraan, Tx	Wink	23	0.98	
	Arco	8	Crane	M	20	0.85	
	Shell	Mult.	Wasson, TX	Wink	20	0.85	
	Phillips	10	Rankin, TX	Mesa, TX	18	0.77	
	Texas-NM	8	M	Crane	18	0.77	
	Texas-NM	8	Able, TX	Crane	16	0.68	

Refinery Markets: Crude--1970

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
	Texas-NM	8	Wilshire, TX	Crane	13	0.56	
	Sun	8	Jameson, TX	Colo. City	13	0.56	
	Pure	8	NM	Keystone	12	0.51	
					2340	100	
25. Salt Lake City, UT	Chevron	2-10	Rangeley, CO	SLC	110	71.90	No
	Amoco	8	Granger, WY	SLC	43	28.10	
					153	100	
26. Delaware City, DE	NONE						Yes
27. Billings, MT [B = Billings]	Continental	8, 12	Canadian Border	B	106	64.63	No
	Exxon	12	Silvertip, MT	B	58	35.37	
					164	100	
28. Catlettsburg, KY	Owensboro-Ashland	24	Lebanon Junc., KY	Catlettsburg	170	100	No
29. Buffalo, NY	Interprovincial	12	Tonawanda, NY	Buffalo	160	100	Yes
30. El Paso, TX	Chevron	20	Wink, TX	El Paso	105	100	No
31. Casper, WY [C = Casper]	Amoco	10, 12, 16	Reno, WY	C	109	32.44	No
	Amoco	12	Elk Basin, WY	C	99	29.46	
	Platte	16	Chatman, WY	C	96	28.57	
	Plains	8	WY	Lance Creek, WY	32	9.52	
					336	100	
32. Wrenshall, MN Superior, WI	Lakehead	18, 26 36, 40	Canada	Superior	1560	100	Negligible
33. Detroit, MI	Marathon	16	Samaria, MI	Detroit	80	100	No
34. Shreveport, LA	NO DATA						No
35. Warren, PA	Kiantone	12	Buffalo, NY	Warren	48	100	No
36. El Dorado, AR	NO DATA						No
37. Canton, OH	Ashland	12	Lima	Canton	70	100	No

Refinery Markets: Crude--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
38. McPherson, KS [McP = McPherson]	Jawhawk	12	Chase, KS	McP	86	34.40	No
	Kaw	8, 10, 12		Chase	86	34.40	
	Jawhawk	10	Valley Center, KS	McP	43	17.20	
	CRA	10	Laton, KS	Phillipsburg	21	8.40	
	Continental	8	Geneseo, KS	McP	14	5.60	
					250	100	
39. Denver, CO	Continental	10	Cheyenne, WY	Denver	46	100	No
	Amoco	6	Boston, KS	Denver	7		
					46		

Refinery Markets: Product--1970

	Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
1.	Port Arthur, TX	Colonial	36, 40	Pasadena	GA and North	1140	28.75	Yes
	Lake Charles, LA	Colonial	36	Pasadena	GA and North	768	19.37	
	[PA = Port Arthur	Texaco	2-12, 30	PA	PA	400	10.09	
	LC = Lake Charles	Explorer	28	PA	Houston	380	9.58	
	B - Beaumont	Lake Charles	20	LC	LC	319	8.05	
	PN = Port Neches]	Texas Eastern	20, 14	B	AR	300	7.57	
		Lake Charles	16	LC	LC	185	4.67	
		Pure	10, 12	B	PA	117	2.95	
		Explorer	12	LC	PA	101	2.55	
		Mobil	12	Hebert, TX	Hearne, TX	95	2.40	
		Pure	8	B	PN	86	2.17	
		Gulf	10	Lucas Sta.	Sourlake, TX	48	1.21	
		Mobil	8	Hebert, TX	Waskom, TX	17	0.43	
						3965	100	
2.	Houston, TX	Colonial	36	H	GA and North	1140	32.50	Yes
	City, TX	Colonial	36	H	GA and North	768	21.89	
	[H = Houston	Explorer	28	H	OK	380	10.83	
	TC = Texas City]	Texas Eastern	16, 20	Baytown	Beaumont	300	8.55	
		Amoco	18	TC	Port Arthur	252	7.18	
		Exxon	12, 16	Baytown	Port Arthur	150	4.28	
		Shell	10	H	Sinco Term.	120	3.42	
		Marathon	16	TC	Pasadena	108	3.08	
		Phillips		Pasadena	Pasadena	100	2.85	
		Exxon	8	Baytown	North H	52	1.48	
		Arco	10	H	Arlington, TX	47	1.34	
		Exxon	8	Baytown	South H	30	0.86	
		Exxon	8	North H	Irving, TX	28	0.80	
		Exxon		H	Luling, TX	23	0.66	
						3508	100	
3.	Los Angeles, CA	Four Corners	Mult.	LA	LA	288	40.11	Yes
	[LA = Los Angeles]	Southern Pacific	24	Watson, CA	LA	247	34.40	
		Southern Pacific	16	Watson, CA	Norwalk, CA	92	12.81	
		San Diego		LA	San Diego	75	10.45	
		Southern Pacific	10	Watson, CA	LA	16	2.23	
						718	100	

Refinery Markets: Product--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
4. Chicago, IL Hammond, IN [Chi = Chicago H = Hammond	Westshore	16	H	Des Plaines, IL	384	26.74	Yes
	Badger	16, 12	Chi Pump Sta.	Chi prod. term.	200	13.93	
	Wolverine	16	E. Chi	MI	172	11.98	
	Marathon	16-12, 12	Griffith	H	132	9.19	
	Badger	10	Chi. P. S.	Chi. P. T.	108	7.52	
	Badger	10	Lemont, IL	Chi. P. S.	103	7.17	
	Badger	12	E. Chi.	Chi. P. S.	97	6.75	
	Wolverine	16	E. Chi.	Niles, MI	80	5.57	
	Buckeye	8-10	E. Chi.	Huntington, IN	46	3.20	
	Arco	8	Hartsdale, IN	Toledo, OH	32	2.23	
	Marathon	10	Griffith	Muskegon, IN	32	2.23	
	Arco	8	Hartsdale	Ft. Madison, IA	22	1.53	
	Amoco	8	Whiting, IN	Decatur, AL	20	1.39	
	Williams		Chi.	IA	8	0.56	
					1436	100	
5. Philadelphia, PA	Arco	30	Arco Ref.	Pt. Breeze Term.	384	30.40	Yes
	Harbor	16	Woodbury, NJ	Linden, NJ	187	14.81	
	Laurel	24	Westville, NJ	Boothwyn, PA	180	14.25	
	Interstate Energy	18	Marcus Hook, PA	Martins Creek, PA	140	11.08	
	Laurel	16	Chester, PA	Boothwyn	120	9.50	
	Sun	14	Twin Oaks, PA	Newark	92	7.28	
	Mobil	10-12	Paulsboro, NJ	Malvern	74	5.86	
	Sohio	8	Chelsea, PA	Phila. Junc.	50	3.96	
	Sun	8	Twin Oaks, PA	Western PA	36	2.85	
					1263	100	
6. Richmond, CA	Southern Pacific	12	Richmond	Oakland	77	37.38	Yes
	Southern Pacific	8	Richmond	Oakland	67	32.52	
	Southern Pacific	8	Richmond	Concord	62	30.10	
					206	100	
7. Baton Rouge, LA [BR = Baton Rouge]	Colonial	40	BR	GA and North	1140	36.50	Yes
	Colonial	36	BR	GA and North	768	24.59	
	Plantation	2-18, 12	BR	MS and North	437	13.99	
	Plantation	4-12	BR (docks)	BR Tank Farm	360	11.53	
	Texas	16	Convent	BR	158	5.06	
	Marathon	20	Garyville, LA	Zachary, LA	150	4.80	
	Shell	20	Norco, LA	BR	110	3.52	
					3123	100	

Refinery Markets: Product--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
8. New Orleans, LA	Gulf	20	Alliance, LA	Collins, MS	210	67.74	Yes
	Collins	16	Meraux, LA	Collins, MS	100	32.26	
					310	100	
9. St. Louis, MO	Explorer	24	WR	Hammond, IN	290	58.47	Yes
[WR = Wood River]	Marathon	12	WR	Champaign, IL	94	18.95	
	Marathon	10	WR	Martinsville, IL	50	10.08	
	Phillips	10	E. St. Louis	Chicago	47	9.48	
	Arco	8	WR	Carrollton, MO	15	3.02	
					496	100	
10. Corpus Christi, TX	Coastal States		CC	Houston	68	45.33	Yes
[CC = Corpus Christi]	Coastal States		CC	San Antonio	26	17.33	
	CASA		CC	Austin	22	14.67	
	CASA		CC	San Antonio	14	9.33	
	Mobil		CC	Tilden, TX	9	6.00	
	Mobil		CC	San Antonio	6	4.00	
	Coastal States		CC	McAllen	5	3.33	
					150	100	
11. Linden, NJ	Buckeye	16-20	Linden	Macungie, PA	321	58.68	Yes
	Buckeye	12	Linden	L. I. City (JFK)	108	19.74	
	Buckeye	12	Linden	L. I. City (JFK)	77	14.08	
	Buckeye	6-8	Linden	Newark Air.	30	5.48	
	Getty	2-6	Linden	Changewater, NJ	9	1.65	
	Getty	2-6	Linden	S. Plainfield, NJ	2	0.37	
					547	100	
12. Ferndale, WA	Olympic	16	Ferndale	Seattle	170	100	Yes
13. Southeast, IN-	Marathon	12	Robinson, IL	Champaign, IL	94	22.82	No
Southwest, IL	Marathon	16	Robinson, IL	Louisville, KY	66	16.02	
	Texas	10	Robinson, IL	Mt. Vernon, IN	59	14.32	
	Marathon	10	Martinsville, IL	Clermont, IN	50	12.14	
	Marathon	12	Robinson, IL	Martinsville, IL	50	12.14	
	Marathon	10	Robinson, IL	Brownsburg, IN	50	12.14	
	Buckeye	6-8	Robinson, IL	Speedway, IN	22	5.34	
	Buckeye	8	Huntington, IL	Indianapolis, IN	21	5.10	
					412	100	

Refinery Markets: Product--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
14. Toledo, OH [T = Toledo	Buckeye	10-12, 8-10	T	Cygnet	112	23.28	Yes
	Buckeye	12-16	T	Bradley, OH	105	21.83	
	Buckeye	12	T	Detroit	68	16.50	
	Sun	2-8	T	Detroit	62	15.05	
	Buckeye	12	T	Wayne, MI	53	12.86	
	Sun	8-10	T	Pittsburgh, PA	47	11.41	
	Arco		T	Detroit	17	4.13	
	Arco		T	Marion, OH	17	4.13	
					481	100	
15. Pascagoula, MS	Plantation	2-12	Pascagoula	Collins, MS	158	100	Yes
16. Ponca City, OK [PC = Ponca City]	Williams	8, 12	PC	Barnsdall, OK	119	33.81	No
	Cherokee	12	PC	Medford, OK	90	25.57	
	Cherokee	12	PC	Tulsa	82	23.30	
	Cherokee	8	PC	Wichita Falls, TX	33	9.38	
	Cherokee	8	PC	Ark. City, KS	28	7.95	
					352	100	
17. Kansas City, MO [KC = Kansas City]	Williams	2-8, 2-12	KC	Des Moines	221	49.22	No
	Williams	8, 12	KC	NE	120	26.73	
	Phillips	8	KC	Paola	41	9.13	
	Williams	8	Argentine, KS	KC	26	5.79	
	Amoco	8-10	Cushing (via KC)	Sugar Creek, MO	23	5.12	
	Arco	8	Kenneth, KS	Carrollton, MO	18	4.01	
					449	100	
18. Cushing-Tulsa, OK	Explorer	24	Glenpool, Ok	Wood River	290	36.76	No
	Williams	2-12, 8	Tulsa	Barnsdall, OK	248	31.43	
	Cherokee	2-10	Glenpool	Wood River	73	9.25	
	Williams	2-8	Drumright, OK	Tulsa	59	7.48	
	Williams	8	Cushing	Drumright	32	4.06	
	Cimmaron	8	Glenpool	El Dorado, KS	30	3.80	
	Texaco-Cities Service	8	W. Tulsa	Drumright	24	3.04	
	Amoco	8-10	Cushing	Sugar Creek, MO	23	2.92	
	Texaco-Cities Service		Tulsa	Ponca City, OK	10	1.27	
					789	100	

Refinery Markets: Product--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
19. Wichita, KS [W = Wichita]	Phillips	14	W	Paola, KS	135	32.07	No
	Kaneb	8-10	W	McPherson	93	22.09	
	Williams	10, 16	El Dorado, KS	Topeka	59	14.01	
	Chase	10	El Dorado, KS	Denver	49	11.64	
	Williams	2-8	El Dorado, KS	Humboldt, KS	38	9.03	
	Mobil	8	Augusta, KS	Topeka	27	6.41	
	Getty	10	El Dorado, KS	El Dorado Term.	20	4.75	
					421	100	
20. St. Paul, MN	Williams	10, 18	Pine Bend	Rosemont	58	45.31	No
	Williams	8	St. Paul Pk	Rosemont	36	28.13	
	Williams	8	St. Paul	Superior, WI	34	26.56	
					128	100	
21. Bakersfield, CA	Southern Pacific	8	Bakersfield	Fresno	30	100	No
22. Amarillo, TX	Phillips	14	Borger, TX	Wichita	126	50.00	No
	Phillips	8	Borger, TX	CO	37	14.68	
	Shamrock		McKee	Amarillo	27	10.71	
	W. Emerald		Amarillo	NM	25	9.92	
	Phillips	8	Borger	Amarillo	40	7.94	
	Emerald		McKee	Southlake	17	6.75	
					252	100	
23. Lima, OH (See Toledo, Oh)	Buckeye	10-12, 12	Lima	Cygnet	110	100	No
24. Midland-Odessa, TX	Gulf		Big Springs	Midland	15	44.12	No
	Trust		Big Springs	Abilene	12	35.29	
	Chevron	8	El Paso	Midland	7	20.59	
					34	100	
25. Salt Lake City, UT	Chevron	8	SLC	Pasco, WA	64	100	No
26. Delaware City, DE		See Philadelphia					Yes
27. Billings, MT	Yellowstone	10	Billings	Bozeman, MT	60	51.28	
	Continental	8	Billings	Sheridan, WY	35	29.91	
	Cenex		Billings	Glendive, MT	22	18.80	
					117	100	

Refinery Markets: Product--1978

Market	Pipeline	Size (inches)	Origin	Destination	Capacity (MBPD)	Percent of Total	Water
28. Catlettsburg, KY	NONE						?
29. Buffalo, NY	Mobil		Buffalo	Rochester	11	100	Yes
30. El Paso, TX	Chevron	6-8	El Paso	Albuquerque	22	70.97	No
	Chevron-Texas	8	El Paso	Midland	9	29.03	
					31	100	
31. Casper, WY	Wyco	8, 10	Casper	Cheyenne, WY	61	64.21	No
	Continental	8	Casper	Sinclair, WY	24	25.26	
	Wyco	6-8	Casper	ND	10	10.53	
					95	100	
32. Wrenshall, MN-Superior, WI	NONE						No
33. Detroit, MI	Buckeye	8, 10	Detroit	Wayne, MI	103	41.20	Yes
	Buckeye		Detroit	Toledo	57	22.80	
	Buckeye		Detroit	Bay City, MI	45	18.00	
	Sun		Detroit	Toledo	30	12.00	
	Sun	8	Sarnia	Inkster (Detroit)	15	6.00	
					250	100	
34. Shreveport, LA	Texas Eastern		Shreveport	El Dorado, AR	21	100	No
35. Warren, PA	NONE						No
36. El Dorado, AR	Texas Eastern	20, 16	El Dorado	IN	215	68.91	No
	Texas Eastern	10	El Dorado	Helena, AR	57	18.27	
	Texas Eastern	10	El Dorado	Ark. City, AR	40	12.82	
					312	100	
37. Canton, OH	Ashland		Canton	Pittsburgh	37	69.81	No
	Ashland		Canton	Newark, OH	16	30.19	
					53	100	
38. McPherson, KS	Kaneb	10	McPherson	North	72	100	No
39. Denver, CO	Wyco	6-8	Denver	Colo. Springs	15	100	No

Q.14. Sec. Mares' statement said, "Entry conditions in the oil pipeline business are relatively easy and the two potential entry barriers of economies of scale and capital requirements, are relatively low. Thus, high concentration is undermined by the relative ease of entry into the industry."

a. Can the builder of an oil pipeline use Federal eminent domain authority to obtain a right-of-way?

b. What are the typical capital costs of a pipeline?

c. What percentage of total pipeline costs are capital costs?

d. How long does it take to build a major pipeline?

A.14.a. The builder of an oil pipeline cannot use federal eminent domain authority to obtain a right-of-way, since no federal eminent domain authority exists in this area. State eminent domain authority does exist, however. While DOE has not undertaken a survey of all state statutes, the DOE deregulation study at p. 42 indicates that 22 states have some form of eminent domain and/or common carrier authority. This authority exists in every important crude producing state. The only federal regulation of right-of-way occurs regarding the crossing of federal lands, where permits are required from the Department of the Interior. DOE's deregulation study discusses this at p. 42.

b. There are no typical pipeline capital costs. The cost to build pipelines varies substantially depending on how the pipeline is owned. For example, a pipeline owned and operated entirely by an oil company pipeline subsidiary usually will finance the pipeline internally, drawing upon the resources available from the parent. The capital could come from internally generated cash flow, from the sale of equity, or from the sale of debt. As a result, it is impossible to determine the capital costs for this type of pipeline. If a pipeline is owned jointly as a separate stock company, then the joint venture will undertake to raise capital for the construction of the pipeline. In this situation, in recent years, the pipeline companies have sought 90 percent of its capital in the form of long-term debt, and 10 percent in equity contributions from the parent oil companies. The cost of the debt will depend to a great extent on the ratings of the oil company participants since these oil companies guarantee the debt through long-term agreements usually known as throughput and deficiency agreements. Again, it is difficult to assess the cost of capital since it depends upon when the debt was sold, and which oil companies are guaranteeing the debt.

c. The percentage of total pipeline costs represented by capital costs is very high. Oil pipelines are highly capital intensive since the principle expenditures by pipelines are the initial costs of construction, land acquisition, and equipment. A breakdown of typical investment costs allocated among various items is attached. Ongoing costs are low by comparison. Wolbert indicates the buried pipe and right-of-way costs constitute 75-80 percent of total pipeline capital investment. (Wolbert, U. S. Oil Pipe Lines, 94) The fixed costs of the pipeline, namely, debt service, taxes, and fixed operating costs, are about 60 percent of total revenues. The principal variable costs are labor and fuel costs to power the pumps. (Wolbert, 94) Another estimate puts fixed costs as high as 80 percent (AOPL, Pipeline Transportation, A Review of the Oil Pipeline Industry, 35) with as much as two-thirds of every dollar of revenue required for service of debt (amortization), taxes and return on investment. (AOPL, 36) Wages, on highly automated systems should not represent more than 15 percent of all costs. (AOPL, 36) Fuel and power costs and other variable costs are increasing at inflationary rates. Fuel costs, because of the large increases in all energy costs, now represent a larger percentage of total operating costs, but no recent estimates are available.

d. The length of time it takes to build a major pipeline varies substantially. If all that is meant is the actual construction time, the time can be relatively short, perhaps as short as two years. But if the planning, permitting, right-of-way acquisition, and construction time is meant, then the time period can be quite stretched out depending upon the obstacles met by the pipeline. No one time period is representative, however.

Investment in liquids pipelines

CRUDE PIPELINES INVESTMENT BY FIVE COMPANIES

Item	Company and investment, $					Total, $	Percent
	A	B	C	D	E		
Land	1,475,784	882,809	308,224	729,074	823,889	4,319,640	0.3
Right of way	12,058,479	1,249,176	316,778	13,448,630	12,939,747	40,012,812	2.9
Line pipe	130,171,276	31,428,240	12,827,295	82,849,104	139,992,836	397,267,953	29.2
Line pipe fittings	8,352,682	1,957,716	1,872,127	13,092,122	17,530,200	41,404,847	3.0
Pipeline construction	176,921,804	33,411,347	17,153,878	180,812,379	165,304,487	573,603,895	42.5
Buildings	12,969,432	5,142,630	2,465,062	8,873,737	6,196,267	34,747,157	2.6
Boilers	....	....	....	....	....	....	...
Pumping equipment	20,846,826	6,773,288	2,582,712	13,925,802	40,915,864	85,043,472	6.3
Machine tools and machinery	....	....	....	22,140	....	22,140	...
Other station equipment	58,209,317	14,788,248	3,824,365	18,773,824	15,845,201	111,420,795	8.2
Oil tanks	13,218,107	8,529,760	5,663,872	15,810,828	17,278,072	60,500,839	4.4
Delivery facilities	....	3,886,464	3,362,084	2,490,104	1,110,949	10,849,601	0.8
Communication systems	....	2,152,829	4,985	7,702,479	1,101,881	10,962,705	0.8
Office furniture & equipment	826,726	180,907	140,684	315,880	203,186	1,669,673	0.1
Vehicles & other work equip.	3,790,774	1,201,485	329,819	3,317,872	98,978	8,747,929	0.6
Other property	....	....	....	....	49,786	49,786	...
Total	433,321,088	109,537,010	82,881,188	242,773,946	479,839,702	1,348,333,388	100.0

PRODUCT PIPELINES INVESTMENT BY FIVE COMPANIES

Item	A	B	C	D	E	Total, $	Percent
Land	4,058,136	3,674,816	482,382	797,369	2,448,179	11,461,880	0.4
Right of way	22,836,432	10,540,080	9,871,861	8,304,644	6,718,796	58,170,901	2.5
Line pipe	287,855,844	86,904,238	63,743,251	85,014,909	106,871,996	630,472,188	27.6
Line pipe fittings	35,564,761	10,935,814	8,334,489	3,960,137	13,367,400	72,162,601	3.2
Pipeline construction	468,610,022	104,281,768	101,955,970	91,785,050	143,644,902	910,377,712	39.9
Buildings	14,213,723	6,645,300	2,614,837	8,499,283	14,529,113	46,342,816	2.0
Boilers	....	....	....	....	....	....	...
Pumping equipment	27,300,319	9,025,033	11,202,474	17,235,894	21,175,324	91,170,844	4.0
Machine tools & machinery	....	....	....	....	218,321	218,321	...
Other station equipment	78,024,980	18,119,649	21,327,821	21,999,313	64,827,342	194,297,808	8.5
Oil tanks	43,775,758	25,068,364	12,475,907	16,198,129	22,753,155	120,290,993	5.3
Delivery facilities	....	....	9,706,000	10,521,879	30,509,963	50,736,832	2.2
Communication systems	[illegible]	215,600	801,817	7,601,732	....	9,173,157	0.4
Office furniture & equipment	6,241,555	1,133,954	280,042	402,821	848,147	8,906,989	0.4
Vehicles & other work equip.	2,561,192	1,130,033	3,301,361	1,966,865	869,225	9,829,721	0.4
Other property	45,599,230	....	10,805,242	....	....	56,404,472	2.5
Total	1,070,478,382	207,917,017	284,880,863	331,437,817	429,070,043	2,283,763,722	100.0

Q.15. Sec. Mares' advocated abolition of oil pipeline regulation with a specific procedure whereby aggrieved persons would bear the burden of demonstrating the need for reimposition of regulation. His testimony states, "Of course, in such situations under the normal incentives of economics, entry of competition would be expected and the agency's authority should be limited with this in mind."

a. What does that mean?

b. Would the aggrieved person have to demonstrate that a competing pipeline will not be built?

c. Wouldn't the existing pipeline argue that the FERC should wait to see if a competing pipeline will be built?

d. How long would that take?

A.15. The statement means that the agency reviewing any reimposition of the regulation mechanism must take into account potential entry as a factor. Therefore, a complete examination of any proposed reregulation must judge whether any barriers to entry exist, and assess the likelihood that new entrants will come into the market in response to various price signals.

For the remainder of this question, the response is the same as A.1.

JAMES A. MC CLURE, IDAHO, CHAIRMAN
MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.
HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.
MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

The Honorable C. M. Butler
Chairman
Federal Energy Regulatory Commission
825 North Capitol Street N.E.
Washington, D.C. 20426

Dear Mr. Chairman:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon J. Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

MINORITY QUESTIONS FOR MEMBERS OF THE FEDERAL ENERGY COMMISSION

1. Have you and the other Members of the Commission been consulted by the Department of Justice in connection with the Atlantic Refining Company consent decree dissolution proceeding?

2. What will the effect on the FERC valuation proceeding be if the consent decree is dissolved?

3. What is your position, and the position of the other Members of the Commission on the pending oil pipeline deregulation bills? Why?

4. If oil pipeline regulation by FERC is continued and the consent decree is dissolved, would it be desirable to transfer to FERC Elkins Act enforcement power thereby consolidating the related components of Federal oil pipeline regulatory authority in a single agency?

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON 20426

JUL 16 1982

Gordon J. Humphrey, Chairman
Energy Regulation Subcommittee
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This letter is in response to four supplemental questions which I received following my appearance before your Subcommittee on May 21, 1982, concerning S. 1626. As was the case when I appeared before the Energy Regulation Subcommittee, I am responding personally rather than on behalf of the Commission.

First, you asked whether I had been consulted by the Department of Justice in connection with the Atlantic Refining Company consent decree dissolution proceeding. The representatives of the Department of Justice have not contacted me in regard to that matter; however, I understand that they have consulted with both the Office of the General Counsel and the Office of Regulatory Analysis of the Federal Energy Regulatory Commission.

Next, you inquired about the effect on the FERC valuation proceeding if the consent decree is dissolved. Since the answer to this question would require a prejudgment on my part of an issue in an on-going proceeding at the Commission, I regret that I cannot respond to your question.

Third, I was asked to state my position on the pending oil pipeline deregulation bills. The pending legislation represents an important initiative in the continuing effort to eliminate unneeded and burdensome economic regulation. There appear to be two regulatory concerns relevant to the question of deregulation of the oil pipelines in the lower 48 states. One is that, absent regulation, oil pipelines will charge prices that are excessively high; the other is that, again absent regulation, they will discriminate between shippers in price and service. Both of these concerns depend on the existence of market power.

In general, I believe that oil pipelines do not possess sufficient market power to justify the retention of federal price controls. I discussed the rationale for my position at length in the hearing held by the Subcommittee on Energy Regulation on May 21. There do appear to be some markets where oil pipelines may have significant monopoly power. In the few market areas in which there exists substantial monopoly power and substantial potential for abuse, it is my opinion that the Congress should develop a carefully-crafted statute which retains enough regulation to curb excessive prices and to prevent discrimination.

Finally, I was asked whether, in the event of continued regulation by the Commission and dissolution of the consent decree, it would be desirable to transfer to the Commission the enforcement power associated with the Elkins Act. As you may be aware, there currently exists some question as to whether the Commission already possesses this enforcement authority. Therefore, a provision such as the one you suggest would have the beneficial effects not only of clarifying the scope of the Commission's authority, but also of ensuring consolidation of oil pipeline regulation in a single agency, if such regulation continues.

I hope that this information is helpful to you. If I may be of any further assistance to you, please do not hesitate to contact me.

Sincerely,

C. M. Butler III
Chairman

JAMES A. MC CLURE, IDAHO, CHAIRMAN
MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.
HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Mr. Christopher DeMuth
Administrator
Office of Information and
Regulatory Affairs
Office of Management and Budget
Executive Office Building
Washington, D.C. 20503

Dear Mr. DeMuth:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

MINORITY QUESTION FOR CHRISTOPHER C. DeMUTH ON S. 1626

1. As Executive Director of the Presidential Task Force on Regulatory Relief you are charged with examining the benefits versus the costs of Federal regulation. You have cited in your testimony some of the costs of pipeline regulation (as much as $48 million in direct administrative costs). You did not provide any quantitative estimate of the benefits of the continuation of oil pipeline regulation. Have you made any quantitative assessments of the benefits versus the costs of S. 1626? If not, why not?

Honorable Gordon J. Humphrey
United States Senate
Committee on Energy and Natural Resources
Washington, D. C. 20510

Dear Mr. Chairman:

Attached is my response to your question on S. 1626. We look forward to working with the Committee to enact a meaningful oil pipeline deregulation bill.

Sincerely,

/s/ Christopher DeMuth

Christopher DeMuth
Administrator for Information
and Regulatory Affairs

Attachment

MINORITY QUESTION FOR CHRISTOPHER C. DeMUTH ON S. 1626

1. As Executive Director of the Presidential Task Force on Regulatory Relief you are charged with examining the benefits versus the costs of Federal regulation. You have cited in your testimony some of the costs of pipeline regulation (as much as $48 million in direct administrative costs). You did not provide any quantitative estimate of the benefits of the continuation of oil pipeline regulation. Have you made any quantitative assessments of the benefits versus the costs of S. 1626? If not, why not?

Answer

The estimate of $48 million is DOE's estimate of the direct administrative costs that will be incurred if full-force regulation is applied in the future. These presumably would be only a portion of the total costs because, in a case such as this where markets are largely competitive, regulation is bound to lead to significant inefficiencies. The whole point of the Administration's approach is to limit regulation to situations of true monopoly--the only circumstance where regulation of this sort could be beneficial.

JAMES A. MC CLURE, IDAHO, CHAIRMAN

MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.

HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Honorable William F. Baxter
Assistant Attorney General
Antitrust Division
Department of Justice
10th and Constitution Avenue N.W.
Washington, D.C. 20530

Dear Mr. Baxter:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

MINORITY QUESTIONS FOR THE DEPARTMENT OF JUSTICE ON S. 1626

1. Assistant Attorney General Baxter testified that, "...we do not support the bill in its details...". Please provide the Committee with a section-by-section statement of the Department's position on S. 1626, indicating the reasons for the Department's opposition in each instance in which you oppose a section.

2. Assistant Attorney General Baxter testified that, "...the Department would support legislation requiring the FERC to implement, in an expeditious fashion, a regulatory regime responsive to industry needs and capable of achieving the proper purposes of regulation as to those pipelines that need to be regulated at all." Please provide the Committee with draft legislation such as he described that the Department would support.

3. Assistant Attorney General Baxter testified that the Department has "begun to examine available transportation shipment and price data to assess the substantiality of intra- and intermodal competition faced by particular pipelines." Please provide the Committee with a detailed summary of the data available to the Department on this issue which you have examined.

4. Assistant Attorney General Baxter testified that, "The data generally suggest for many pipelines -- and very possibly, most -- that continued regulation is no longer appropriate." Please provide the Committee with a list of regulated oil pipelines, and indicate which pipelines are suitable candidates for deregulation. Please identify the criteria used in determining whether a given pipeline is a suitable candidate for deregulation. In each case, indicate how the criteria were applied, and how the determination was made.

5. Can you say with certainty, based upon the data available to the Department from your studies, that a majority of oil pipelines have actual competitors able to deliver petroleum and petroleum products for equal or lesser rates? Please provide the necessary background materials to substantiate your conclusion.

6. Assistant Attorney General Baxter testified that, "To address these (antitrust) concerns in the relatively small number of cases to which they might apply, the Department believes that any deregulation proposal should include an appropriate antitrust savings clause. Specifically, this clause should allow challenges to deregulated joint ventures under the antitrust laws where the joint venture may create, allow or continue the exercise of market power. The issue of appropriate remedies should also be addressed." Please provide the Committee with draft legislative language embodying the two principles endorsed.

7. Assistant Attorney General Baxter testified that, "In some cases, deregulation that appears doubtful may be acceptable if joint venture ownership of the line is prohibited, or if there is a requirement, among others, that ownership in the joint venture be open to all potential shippers."

   a. In what instances should joint venture ownership be prohibited?

   b. In what instances should ownership be open to all potential shippers?

   c. If the joint venturers were limited, would the Department still advocate making the pipeline subject to the Sherman and Clayton Acts?

8. The landmark study on oil pipelines published by the American Petroleum Institute, U.S. Oil Pipe Lines, by George S. Wolber, Jr., concluded that, "There seems to be little question that the Atlantic Refining Company consent decree has exerted a downward pressure on pipelines rates." Does the Department of Justice concur with that conclusion?

9. We understand that the Department of Justice took action in November, 1981 seeking to dissolve the consent decree in the Atlantic Refining Company case.

a. Please provide the Committee with a case history of the consent decree, including a description of its purpose, and the Department's view of the effect the decree has had on affected parties.

b. Please provide the Committee with a statement of the reasons and objectives of the Department for seeking to dissolve the consent decree at this time.

c. What outcome does the Department seek in its effort to dissolve the consent decree?

d. Does the Department seek a new consent decree, and if so with what terms and conditions? Or does the Department seek removal of any consent arrangement governing dividends and rebates under the Elkins Act?

10. Would the Department seek evaluation periodically of potential Elkins Act violations in the form of excessive dividends or other payments from oil pipelines to parent shipper-owners if the consent decree is completely dissolved? If so, what administrative method would be used by the Department of Justice to monitor potential Elkins Act violations?

11. To what extent has the Department consulted with the Federal Energy Regulatory Commission in connection with the pending valuation proceedings there about the relationship of the consent decree dissolution to the valuation proceeding?

12. If rate regulation of interstate pipelines is continued by FERC under the Interstate Commerce Act, what impact would the dissolution of the consent decree have on FERC's ability to regulate?

13. What is the expected completion date for the consent decree dissolution proceedings?

14. If S. 1626 were enacted, what effect would it have on the Elkins Act Consent Decree?

15. Please provide the Committee with the position the Department has taken on the current valuation proceedings at FERC including the rationale for that position.

COMMITTEE NOTE: AS OF SEPTEMBER 13, 1982 THE DEPARTMENT OF JUSTICE HAD NOT RESPONDED TO THE COMMITTEE'S QUESTIONS.

JAMES A. McCLURE, IDAHO, CHAIRMAN
MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.
HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Mr. John Anderson, President
Farmland Industries, Inc.
Post Office Box 7305
Kansas City, Missouri 64116

Dear Mr. Anderson:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

QUESTIONS FOR FARMLAND INDUSTRIES

1) In his oral statement, Mr. Bailey stated that MAPCO is constructing a new pipeline into your Coffeyville refinery. Is that a correct statement? How many competing proposals for that service did you receive? What factors led you to choose the MAPCO proposal?

2) What percentage of your 1981 refinery production did your exchange barrels represent? What percentage of that production was sold out-right to non-affiliated customers?

3) Please provide two lists of your pipelines' assets, either wholly or jointly owned, one of those which you would consider to be operating in a competitive environment and the other of those you consider to be operating in a non-competitve environment.

4) It has been suggested that you favor strict utility style net original cost regulation for the oil pipeline industry. Is that a correct statement? If not, what style of regulation do you suggest?

5) What specific amendments to S 1626 would you suggest that would address the most important concerns of your association and at the same time result in the least amount of regulatory burden on the oil pipeline industry?

Quipped
7/14

COOP

FARMLAND INDUSTRIES, INC.

[illegible] 7305 [illegible]

JOHN F. ANDERSON
[illegible]

July 9, 1982

The Honorable Gordon J. Humphrey
United States Senate
6205 Dirksen Senate Office Building
Washington, D.C. 20510

Re: Petroleum Pipelines

Dear Senator Humphrey:

This is in reply to the questions contained in your letter of June 21, 1982. Farmland Industries believes that the present deficiency in the administration of pipeline regulatory authority is a result of FERC's actions and its failure to adopt a standard for just and reasonable rates. As indicated in my testimony, Farmland Industries does not believe it should be necessary for FERC to suspend every tariff which is filed. We also believe it should not take over ten years to obtain a final decision concerning Commission action and standards.

My testimony supports the need for continued regulation of pipelines. The testimony of government witnesses was that additional studies need to be made and continued regulation will be necessary for at least some pipelines. In either event, i.e., regulation of all pipelines, or regulation of some pipelines, we believe improvements can be made in the application of the regulations.

We believe efficient and effective regulation can be achieved based on existing statutes by FERC rendering prompt decisions on matters presently pending before it and acting on its own initiative. Unfortunately, to date FERC has not taken advantage of the opportunities provided it in this regard. Even now FERC on its own could still provide improved administration more quickly and cost-effectively than could be obtained by any other method.

The present statutes provide FERC with sufficient authority and flexibility to develop simple and cost-effective regulation. If (by virtue of FERC's continued refusal to act) legislation is deemed necessary, we would suggest the following approach since the statute presently requires just and reasonable rates.

The existing statute could be amended to define just and reasonable rates as rates which are sufficient to (a) provide profits to the equity owners commensurate with profits earned on investments in other enterprises having corresponding risks; and (b) assure confidence in the financial integrity of the enterprise so as to maintain its credit and to attract capital and cover its expenses. Maximum tariffs should be determined by applying an equitable rate of return to a reasonable rate base.

The rate base easiest to determine and administer is one where the tangible property portion is the cost of pipeline property when first devoted to transportation service, less depreciation. The rate of return applied to such a rate base would have to be high enough to allow a tariff level sufficient to provide the necessary funds to meet the requirements of (a) and (b) above. The Commission should have the flexibility to establish an allowable rate of return which will meet the needs of each pipeline.

There is nothing novel in the use of an actual cost rate base. The landmark case of Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944) recognized that the end result was the goal of a rate methodology. The rates upheld in the Hope case had been made on the basis of an actual cost rate base. In addition to the FPC, a majority of state regulatory agencies also utilize an actual cost rate base. A properly administered actual cost rate base methodology would require a minimal amount of regulation and regulatory effort.

It is not necessary that the Commission give extensive attention to each and every pipeline. The Commission should be required to act and to act timely where there are shipper complaints. In order to protect the interests of shippers and consumers, the Commission should retain the authority to act on its own initiative. As a practical matter, if the Commission investigated only tariffs for which there were complaints, most pipelines because of the predominance of shipper/owners would have achieved de facto deregulation.

As William Baxter, Assistant Attorney General, noted, the pipeline is in the possession of most, if not all, of the essential information necessary to enable the Commission to reach a decision concerning tariffs. To provide a mechanism so that such information is available to the Commission and shippers and consumers affected by agency action and inaction, it is imperative that the burden of proof should remain upon a pipeline carrier to show that a tariff is just and reasonable. Otherwise, no shipper or group of shippers would have the resources and means to satisfy the burden of proof that would be imposed by current proposals.

Mapco is beginning the construction of two new pipelines between our Coffeyville, Kansas, refinery and El Dorado, Kansas, with a four-inch connection to Mapco's LPG system and a six-inch connection to Kaneb's refined fuels system. The four-inch incoming line (to the refinery) will transport butanes and natural gasoline to meet refinery needs. The six-inch outgoing line will move gasoline, distillates and diesel fuel into Kaneb's system. It is our hope that use of the Kaneb pipeline will enable us to continue to supply the demand of our members which previously had been met by using primarily the Phillipsburg, Kansas, and Scottsbluff, Nebraska, refineries, which are being closed. Neither of the new pipelines will materially influence our use of, nor reduce our dependence upon the Williams Pipe Line system. Mapco was selected to build and operate the new pipelines because their proposal was the most economical received. Even this proposal requires that Farmland guarantee sufficient shipments to minimize the risk to the pipeline.

In the last couple of years, Farmland Industries has exchanged less than 50% of its refinery production. Inter-refinery sales were approximately 6%. It should be noted, however, that exchanges are not a substitute for transportation. Because of exchange differentials, exchange partners seldom realize any significant savings as a result of an exchange. Rather, the motivation for an exchange is to minimize movement of the refined fuels and to meet existing demand. Pipelines are built to move product, not to replace exchanges.

Farmland Industries, through CRA, Inc., owns crude oil gathering lines aggregating 652 miles and trunk lines of 243 miles. These lines serve our refineries at Coffeyville, Kansas, and Phillipsburg, Kansas. The associated tankage, rights-of-way and other property provide the sole function of a crude gathering system for the two refineries. We do not own any other pipeline assets, although we do own (through CRA, Inc.), a 12% stock interest in Seaway Pipeline.

At the hearings on May 21, 1982, Senator Nickles inquired whether or not Farmland Industries had realized any net benefit under present regulations and their application. In a word, the answer is yes. However imperfect, present regulations provide an upper limit on tariffs. Without the impact of present litigation, we believe existing tariffs would be significantly higher.

In my testimony, I indicated that in our last fiscal year we had paid approximately $36,000,000 in pipeline tariffs. In almost eleven years of litigating, we have paid in attorneys' fees, expert witness fees, and other expenses substantially less than 1% of one year's pipeline tariffs. In our opinion, Farmland Industries' savings in pipeline tariffs directly resulting from the combination of regulation and ongoing litigation have been substantial and amount to more than 100 times the expenditure on litigation. Obviously, our litigation costs would have been considerably less if the matter had been resolved in an efficient and timely manner.

On behalf of the 500,000 farm families who own Farmland Industries through local cooperatives in 19 midwestern states, we appreciate the opportunity to appear before the May 21 hearing and also for the opportunity to provide additional information in response to your questions.

Sincerely yours,

John F. Anderson

JAMES A. MC CLURE, IDAHO, CHAIRMAN

MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.

HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Mr. Keith E. Bailey
President
Williams Pipe Line Company
Box 3448
Tulsa, Oklahoma

Dear Mr. Bailey:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

QUESTIONS FOR WILLIAMS COMPANY

1) What is your position on the various reregulation provisions proposed by the administration witnesses?

2) What is your position on total versus economic regulation as proposed by the administration witnesses?

3) What responses does Williams have to the specific allegations made in Farmland's written testimony?

WILLIAMS PIPE LINE COMPANY
ONE OF THE WILLIAMS COMPANIES

KEITH E. BAILEY
PRESIDENT
(918) 588-3258

July 6, 1982

The Honorable Gordon J. Humphrey
United States Senate
Chairman of the Committee on
Energy and Natural Resources
Washington, D.C. 20510

Dear Senator Humphrey:

I appreciate the opportunity to respond to the questions posed in your letter of June 21 regarding the issue of oil pipeline deregulation as it is being considered by your Committee in S. 1626. The following responses are in the order posed in your letter.

1) Q - What is your position on the various reregulation provisions proposed by the administration witnesses?

A - The record before your Committee would, I feel, support deregulation as proposed in S. 1626 without the need for reregulation. The industry has, through its various witnesses, presented a comprehensive picture of the industry and the pervasive competition that characterizes it. With the exception of their concern regarding the TAPS line, the administration witnesses were unaware of any other line which, in their judgment, would warrant consideration under their respective concept of reregulation. In that regard, it was clear that there were relatively substantial differences between the various administration witnesses as to what reregulation meant, and none had developed their concept in any amount of detail. It seems to me that the concept of reregulation of any form would continue the uncertainty that now exists in the industry as to how it is to be regulated, as well as present the prospect of administrative agency mischief that may subvert the intent of Congress. That being the case, it seems to me a more appropriate approach would be for Congress to adopt deregulation without any provision for reregulation. At the same time, it could direct the Chairman of the F.E.R.C. to prepare regular reports to Congress regarding the performance of the industry under deregulation. This would avoid the problems I outlined while at the same time providing Congress with the data necessary to determine the effectiveness of the original deregulation legislation.

I would, in any event, appreciate the opportunity to comment further if and when specific reregulation provisions are detailed by their proponents.

2) Q - What is your position on total versus economic regulation as proposed by the administration witnesses?

A - I support total deregulation so long as it is achieved in a manner that makes it clear that pipelines that continue to hold themselves out to be common carriers can obtain rights of way across federal lands under the relevant federal statutes, and can continue to exercise the right of eminent domain under state statutes where that right is now available. Also, it should be made clear that the states are precluded from imposing economic regulation on common carrier interstate pipelines. The latter provision, obviously, is to ensure that the intent of Congress is not subverted by another level of government.

3) Q - What responses does Williams have to specific allegations made in Farmland's written testimony?

A - Attached is a copy of the complete statement in response to the allegations made in Farmland's written testimony. I had prepared this to respond to those allegations during my oral presentation at the Committee hearing on May 21 but, because of time constraints, my oral statement was somewhat abbreviated. The principal theme of my response to Farmland's allegations is that Farmland has benefitted significantly from the competition that exists in the industry and, more particularly, from Williams' own competitive environment. In view of this, Farmland's claim that there is lack of competition and that a restrictive form of regulation should continue is ill-founded.

Again, I appreciate the opportunity to respond to your questions and look forward to the favorable consideration of S. 1626 by your Committee and the Congress.

Regards,

KE Bailey

Keith E. Bailey, President
Williams Pipe Line Company

KEB:cm
Attachment

Keith E. Bailey
Williams Pipe Line Company
May 21, 1982

ORAL STATEMENT

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, I, LIKE THE OTHERS, APPRECIATE THE OPPORTUNITY TO PRESENT MY VIEWS TO YOU TODAY. I HAVE SUBMITTED A WRITTEN STATEMENT WHICH IS DESIGNED TO MORE FULLY ADDRESS THE ISSUES.

I AM QUITE CONFIDENT THAT THE RECORD WHICH WILL BE MADE IN THESE HEARINGS WILL MAKE THE CASE THAT ECONOMIC REGULATION IS NO LONGER REQUIRED FOR THIS INDUSTRY AND THAT, IN FACT, A CONTINUATION OF SUCH REGULATION CARRIES WITH IT THE POTENTIAL FOR SERIOUS HARM.

OBVIOUSLY, I AM ENCOURAGED BY THE FACT THAT THE FEDERAL GOVERNMENT WITNESSES, WITHOUT EXCEPTION, SUPPORTED THE UNDERLYING PRINCIPLES WHICH FORM THE FOUNDATION FOR THIS PROPOSED LEGISLATION; NAMELY, THAT THIS INDUSTRY IS ONE WHICH SHOULD BE DEREGULATED AND THAT THE TIME IS RIPE NOW FOR SUCH DEREGULATION.

AT THIS POINT, I FEEL COMPELLED TO DEPART FROM THE ORAL STATEMENT I HAD ORIGINALLY INTENDED TO PRESENT. I WANT TO ADDRESS BRIEFLY THE CONTENT OF MR. ANDERSON'S STATEMENTS TO THIS COMMITTEE, BOTH WRITTEN AND ORAL, AS I FEEL THEY ARE AT BEST EXTREMELY SELF SERVING AND FACTUALLY INACCURATE AND, AT WORST, AN ATTEMPT TO MISLEAD THIS COMMITTEE IN THE TASK IT HAS BEFORE IT TODAY.

MR. ANDERSON SEEMS QUITE PREPARED TO ACCEPT THE BENEFITS OF COMPETITION AND EVEN ACKNOWLEDGES THE FACT THAT HIS COMPANY ENJOYS ACCESS TO A LOW COST, EFFICIENT DISTRIBUTION NETWORK. HE IS UNWILLING, HOWEVER, TO ACKNOWLEDGE THAT IT IS COMPETITION THAT PROVIDES HIM THESE

BENEFITS. PERHAPS HE FEELS WILLIAMS PIPE LINE HAS RESTRAINED ITS RATES SOLELY OUT OF GOOD WILL TOWARD ITS SHIPPERS OR EVEN THAT, IN SOME MASOCHISTIC WAY, IT ENJOYS EARNING RETURNS ON ITS INVESTMENTS WHICH ARE BELOW INDUSTRY NORMS. I KNOW FOR A FACT THAT HE DOESN'T BELIEVE THE RATES ARE A RESULT OF REGULATORY RESTRAINTS BECAUSE I'VE HEARD HIS WITNESSES AND LAWYERS TESTIFY TO THAT EFFECT IN HEARINGS BEFORE BOTH THE ICC AND FERC. IN THOSE SAME HEARINGS, I'VE ALSO HEARD HIS IDEA OF A "REASONABLE" RATE LEVEL. THE FACT THAT THOSE SO CALLED REASONABLE RATES WOULD LITERALLY BANKRUPT WILLIAMS PIPE LINE WAS JUST ONE OF THE BREAKS OF THE GAME.

WHILE MR. ANDERSON IS UNWILLING TO ACKNOWLEDGE THE EXISTENCE OF COMPETITION, I SENSED NO SUCH RELUCTANCE ON THE PART OF HIS EMPLOYEES WHEN WILLIAMS, MAPCO AND PERHAPS OTHERS RECENTLY BEAT A PATH TO HIS DOOR TO COMPETE FOR THE RIGHT TO PROVIDE PIPELINE TRANSPORTATION SERVICES FOR REFINERY FEEDSTOCKS FOR HIS COFFEYVILLE REFINERY. IN FACT, MAPCO'S SUCCESS IN THAT COMPETITION GIVES LIE, BOTH TO HIS ALLEGATION THAT A NEW LINE CANNOT COMPETE WITH AN EXISTING LINE AND TO THE STATEMENT THAT COFFEYVILLE IS SERVED BY A SINGLE PIPELINE.

PERHAPS HIS RELUCTANCE TO ACKNOWLEDGE THAT FACT IS DRIVEN BY THE SAME BASIC SENSE OF FAIRNESS THAT LEADS HIM TO SAY THAT A COMPANY LIKE FARMLAND WITH $5.5 BILLION OF SALES AND $2.2 BILLION OF ASSETS HAS LITTLE MARKET OR ECONOMIC POWER OR APPARENTLY IGNORE THE FACT THAT HIS OWN PIPELINE TRANSPORTATION COSTS IN 1981 WERE ACTUALLY ONLY 2.5%

OF GROSS PETROLEUM SALES AS OPPOSED TO THE 4-5% HE CITES IN HIS TESTIMONY.

IF ONE WERE TO ACCEPT MR. ANDERSON'S SIMPLISTIC MODEL OF COMPETITION, ONE WOULD HAVE TO AGREE THAT 50 PIPELINES SERVING COFFEYVILLE, KANSAS, MOVING MATERIAL TO 50 DIFFERENT DESTINATIONS WOULD REPRESENT 50 MONOPOLIES. APPARENTLY, HE FEELS THAT FARMLAND INDUSTRIES, UNLIKE ANY OTHER INDUSTRIAL CONCERN IN AMERICA, MUST BE ABLE TO ACCESS EVERY POTENTIAL MARKET ON EQUAL TERMS WITH EVERY OTHER PETROLEUM REFINER/MARKETER BEFORE THE PIPELINES SERVING THEIR REFINERY CAN BE JUDGED TO BE COMPETITIVE.

THE MOST DISTRESSING PART OF MR. ANDERSON'S TESTIMONY AND THE PART WHICH IS PERHAPS FARTHEST REMOVED FROM REALITY IS HIS DISMISSAL OF EXCHANGES AS A COMPETITIVE FORCE. WHEN REQUIRED TO FURNISH EXCHANGE DATA TO WILLIAMS UNDER THE TERMS OF A DISCOVERY REQUEST IN THE WILLIAMS PHASE I HEARINGS, IT REALLY CAME AS NO SURPRISE TO US THAT IT LITERALLY TOOK SEVERAL BOXES TO CONTAIN THE DOCUMENTS RELATING TO THEM. EXCHANGES ARE REAL AND THE SIMPLISTIC TRUCK/PIPELINE RATE COMPARISONS PRESENTED BY MR. ANDERSON IN HIS WRITTEN TESTIMONY ARE FAR REMOVED FROM THE REAL WORLD OPPORTUNITIES AVAILABLE TO SHIPPERS SUCH AS FARMLAND. MR. ANDERSON IS QUITE CORRECT WHEN HE SAYS EXCHANGES DO NOT MOVE PRODUCT. THAT IS EXACTLY THEIR PURPOSE AND THE EFFECT IS THAT THE SHIPPER IS ABLE TO SERVE MARKETS WITHOUT THE NECESSITY OF MOVING THEIR OWN PRODUCTION TO THAT MARKET.

I AM SURE THE MANAGEMENT OF KANEB PIPELINE FELT A NEW SENSE OF POWER OVER THEIR "CAPTIVE" SHIPPER WHEN MR. ANDERSON'S COMPANY ELECTED TO CLOSE DOWN ITS PHILLIPSBURG, KANSAS, REFINERY. CERTAINLY I FELT A REAL

SENSE OF POWER WHEN, AT FARMLAND'S INSISTENCE, WILLIAMS SPENT SEVERAL MILLIONS OF DOLLARS TO EXPAND ITS CAPACITY OUT OF COFFEYVILLE, KANSAS, ONLY TO EXPERIENCE NO INCREASE AND EVEN SOME DECREASE IN SHIPMENTS FROM THAT FACILITY.

WERE MR. ANDERSON'S POSITION TO BE ACCEPTED, OVER TIME YOU WOULD SEE THIS INDUSTRY TRANSFORMED FROM ONE WHICH HAS BEEN EFFICIENT, EFFECTIVE, AND WILLING TO TAKE INVESTMENT RISKS, TO ONE WHICH IS MUCH LESS EFFICIENT OR EFFECTIVE AND WHICH IS HIGHLY RISK AVERSE. AS A PIPELINE MANAGER, AND AS A MEMBER OF ONE OF MR. ANDERSON'S CO-OP'S, I RESENT HIS POSITION AND FEEL THAT IN THE LONGER RUN, IT WOULD DO A GREAT DISSERVICE TO BOTH THE PIPELINE INDUSTRY AND THE FARM CO-OP MEMBERS WHOSE INTEREST HE PURPORTS TO REPRESENT.

OBVIOUSLY, I HAVE DEVOTED MY ORAL STATEMENT TODAY TO REFUTING SOME OF THE CLAIMS MADE BY FARMLAND. I AM CONFIDENT, HOWEVER, THAT WHEN YOU READ MY PREPARED TESTIMONY AS WELL AS THAT OF THE OTHER WITNESSES, AND WHEN YOU ANALYZE THE ORAL STATEMENTS, YOU WILL AGREE WITH ME THAT THIS INDUSTRY'S VITALITY AND THE NATION'S BEST INTEREST WILL BOTH BE SERVED BY PASSAGE OF THE PROPOSED LEGISLATION WITHOUT THE NEED FOR SOME RE-REGULATION PROVISION.

I THANK YOU FOR YOUR TIME AND ATTENTION AND WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE.

JAMES A. MC CLURE, IDAHO, CHAIRMAN
MARK O. HATFIELD, OREG.
LOWELL P. WEICKER, JR., CONN.
PETE V. DOMENICI, N. MEX.
MALCOLM WALLOP, WYO.
JOHN W. WARNER, VA.
GORDON J. HUMPHREY, N.H.
FRANK H. MURKOWSKI, ALASKA
DON NICKLES, OKLA.
JOHN P. EAST, N.C.
JOHN HEINZ, PA.
HENRY M. JACKSON, WASH.
J. BENNETT JOHNSTON, LA.
DALE BUMPERS, ARK.
WENDELL H. FORD, KY.
HOWARD M. METZENBAUM, OHIO
SPARK M. MATSUNAGA, HAWAII
JOHN MELCHER, MONT.
PAUL E. TSONGAS, MASS.
BILL BRADLEY, N.J.

MICHAEL D. HATHAWAY, STAFF DIRECTOR
CHARLES A. TRABANDT, CHIEF COUNSEL
D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

June 21, 1982

Mr. Edwin J. Dryer
Executive Director
Independent Refiners Association of America
1775 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Dear Mr. Dryer:

The attached questions are in follow-up to your appearance at the Subcommittee's May 21 hearing on S. 1626. Please provide your response to the Subcommittee by July 9.

Sincerely,

Gordon Humphrey

Gordon J. Humphrey
Chairman

GJH:hu:bn
Attachment

QUESTIONS FOR THE INDEPENDENT REFINER'S ASSOCIATION

1. Please find attached a letter from Tesoro Petroleum Corporation to Congressman Synar.
   a) Is Tesoro a member of your association?
   b) How do you reconcile the views of Tesoro, as an independent refiner, on the competitive nature of oil pipelines with those expressed in your testimony?

2. Does your association support strict utility style net original cost regulation? If not, what style do you feel is appropriate?

3. What specific amendments to S 1626 would you suggest that would address the most important concerns of your association and at the same time result in the least amount of regulatory burden on the oil pipeline industry?

INDEPENDENT REFINERS ASSOCIATION OF AMERICA

1775 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20006
(202) 466-2340

July 23, 1982

The Honorable Gordon J. Humphrey
Chairman, Subcommittee on Energy
Regulation
U.S. Senate Committee on Energy
and Natural Resources
Washington, D.C. 20510

Dear Mr. Chairman:

This responds to your letter of June 21, in which you pose some questions concerning the views of the Independent Refiners Association of America. You inquired first as to whether Tesoro Petroleum Corporation is a member of our organization and whether we subscribe to the views it has articulated in a letter to Congressman Synar. Two other questions concern the type of economic regulation appropriate to oil pipelines and the specific amendments, if any, that we would suggest in connection with S.1626.

In order to provide some general comment at the start, our answers to your three questions will be taken up in reverse order.

The Independent Refiners Association of America is primarily concerned that there remain in place a regulatory mechanism charged with setting rates in the monopoly situation prevailing with respect to oil pipelines. The precise method of evaluation of such matters as rate base, rate of return, etc., should not be written into the statute but should be developed administratively through procedures which will provide for industry input and the application of agency expertise.

We believe that the present statute provides ample authority and guidance to the Federal Energy Regulatory Commission to regulate pipelines adequately under an appropriate ratemaking theory. Congress could do much to solve the problems which now persist in the FERC process by setting procedural deadlines for agency action, similar to those at the ICC where complaint proceedings must be completed within three years of their initiation.

The main problem at FERC at present is its inability to conclude the leading case. Until its decision is rendered in the Williams case, and any appeals are completed, we will not know the status of economic regulation of the pipeline industry under existing law. Given the time and energy already expended on that case, we believe the Commission has a duty to rule promptly. Congress and other interested parties can then evaluate whether the present regulatory scheme leads to a fair result.

Thus, IRAA does not support particular amendments at this time. We believe the better course is to get the benefit of the Commission's decision before starting off precipitately on a new course.

For like reasons, in response to your question regarding "strict utility style net original cost regulation," we would defer expression on regulatory theory until the results of the Commission's study are in hand. Obviously, the regulatory theory ultimately adopted should be a) fair to both consumers (i.e. users) and investors, b) effective in producing the capital required and c) administratively and conceptually as simple as possible. It should be tested primarily by how well it serves those objectives. In that light, and with respect to your specific question, the "net original cost" approach to establishing a rate base has substantial merit for both users and investors provided that other elements, notably the rate of return to be applied to that rate base, are set realistically so that the necessary capital is provided. The "net original cost" approach would also void the underlying problem presented in the Williams case where, if the new owners' position is sustained, each transfer of utility plant would permit an unfair step-up in basis based upon the new owner's purchase price; we say "unfair" because the step-up in rate base would not be related to providing capital for new utility plant but rather a mere change in ownership of existing plant (which could occur repeatedly without any meaningful limit).

As noted, the "net original cost" approach cannot be evaluated apart from the other ratemaking elements. Because of these interrelationships, and the general complexity of the problem, we suggest we await the conclusion of the Commission's study.

In response to your question concerning Tesoro Petroleum Corporation, it is not now a member of IRAA. We agree entirely with its position with regard to the TAPS pipeline which has a direct impact upon Tesoro's operations - but we are disappointed at Tesoro's readiness to abandon regulation in other areas where others are directly affected. We cannot accept, and we believe the facts do not support, Tesoro's view that product exchanges, intramodal and intermodal competition, product competition, etc., operate to prevent the exercise of monopoly power in all markets (or indeed in most markets) in the lower 48 states.

Sincerely,

Edwin Jason Dryer

Edwin Jason Dryer
Executive Secretary & General Counsel

EJD:ac

APPENDIX II

Additional Statements and Communications Submitted for the Record

---

For Release Upon Delivery
Expected at 9:30 a.m., E.D.T.
May 21, 1982

STATEMENT OF
DAVID G. GLICKMAN
DEPUTY ASSISTANT SECRETARY (TAX POLICY)
OF THE TREASURY DEPARTMENT
BEFORE THE SUBCOMMITTEE ON ENERGY REGULATION OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

Mr. Chairman and Members of the Subcommittee:

I am pleased to appear before you today to comment on the impact that S. 1626 may have upon the windfall profit tax.

S. 1626 amends the Department of Energy Organization Act by repealing the authority of the Federal Energy Regulatory Commission to regulate rates, fares or charges for the transportation of oil by pipeline. This repeal does not apply with respect to the authority to prescribe rates, fares or charges for the transportation of oil by the trans-Alaska pipeline (TAPS).

The windfall profit tax is an excise tax imposed on the economic interests of domestic producers of crude oil. The tax is imposed upon the removal of the crude oil from the premises. While the tax is imposed on the producer it is generally collected and paid over to the Treasury by the first purchaser of the oil who withholds the tax from payments made to the producer. However, major integrated producers are required to deposit their tax directly with the Treasury in most instances.

The tax contains three categories or tiers. The tax base for each tier consists of the difference between the removal price of the oil, generally the price posted for a location (with grade and quality adjustments), and a producer's base price for the oil, less the State severance tax, if any. The tax base is then multiplied by the tax rate applicable to the tier of oil in question.

In order to preclude manipulation of the removal price, the windfall profit tax contains rules for determining a "constructive sales" or "representative field" price for application in the case of sales of crude oil between related persons. The constructive sales price concept is the same as is used in determining gross income from the property under section 613 of the Internal Revenue Code, relating to percentage depletion.

In the past, some taxpayers sought to increase the size of their depletion deduction by means of artificially high prices charged for oil sold to related parties. Consequently, under existing administrative practices for income tax purposes, the Internal Revenue Service is able to determine a constructive sales price for oil where transactions occur between persons under common control. A similar authority to determine constructive price exists in the case of the windfall profit tax. However, in the case of the windfall profit tax, the authority may be exercised in order to adjust artificially low prices for oil sold to related parties. In such instances the Service will look to representative removal prices reflected by arms-length transactions between unrelated parties.

Thus, the rules relating to the determination of the removal price for calculation of the windfall profit tax, in all but one instance, operate independently of other costs, including pipeline transportation costs. If, as is proposed in S. 1626, oil pipelines are deregulated, related producer and pipeline companies would not be able to avoid the windfall profit tax by setting an artificially low removal price for crude oil and recouping the lower price by setting an artificially high rate for transportation of their oil alone.

One instance where removal prices are set directly with reference to pipeline transportation costs (as well as other shipping costs) is in the case of oil transported through the TAPS. Under the windfall profit tax reductions in the TAPS tariff below $6.26 do not impact upon the producer's windfall profit tax liability. This is because the windfall profit tax base price (the price above which a windfall profit is recognized) is increased by the difference between $6.26 and the lower tariff. However, no such adjustment exists to reflect increases in TAPS rates. In the case of TAPS the major owners of the system also hold substantial production interests in the Sadlerochit reservoir which is the only North Slope production subject to the windfall profit tax. Thus, absent regulation of TAPS pipeline charges, there would be a substantial incentive for those owners to increase pipeline rates in order to reduce wellhead prices and windfall profit tax liabilities. While the Internal Revenue Service would still retain the authority to adjust removal prices in the event it is determined that pipeline tariffs were excessive, to do so could generate a long, expensive and litiguous controversy relating to fair rates of return on pipeline investments. That is because in Alaska there is no representative field or market price. Consequently, the Treasury endorses the provision in S. 1626 that retains regulatory controls on the TAPS system.

While pipeline deregulation in the lower 48 states would not create problems for administering the windfall profit tax, deregulation could lead to a reduction in Federal windfall profit tax revenues. Any increase in pipeline charges, brought about by pipeline deregulation would not increase the price paid by refiners, which is largely determined by the world price of oil. Nevertheless, the price paid to producers would decline. The cost of transportation, while not directly affecting wellhead prices as in the case of TAPS does influence the amount that refiners will be willing to pay at the wellhead. Consequently, refiner posted prices will be lower than they would be if pipeline prices remain unchanged.

Insofar as pipeline owners who are also producers and refiners are concerned, their revenues remain the same irrespective of how the refinery price is allocated between the wellhead and transportation (except that it is in their interest to lower wellhead prices in order to minimize windfall profit tax liabilities). However, independent producers may be negatively effected by a decrease in wellhead prices. As for them, there is no offsetting income from pipeline revenues.

The effects an increase in pipeline rates will have on windfall profit tax revenue from crude oil produced in the lower 48 states is difficult to gauge. Currently the average pipeline transportation costs for the lower 48 states is in the range of 30 cents to 70 cents per barrel. If, for example, deregulation increased pipeline transportation costs by 50 cents per barrel, a doubling of current levels, the annual net revenue loss would be about $230 million at 1983 levels, declining in subsequent years as the average effective windfall profit tax rate declines. If deregulation were extended to Alaska and transportation costs increased by 50 cents per barrel for Alaskan crude oil, the total annual net revenue loss would increase to about $310 million.

I would be pleased to respond to any questions you have.

SUBMITTED STATEMENT OF THE AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS TO THE SUBCOMMITTEE ON ENERGY REGULATION OF THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE ON S. 1626 TO AMEND THE DEPARTMENT OF ENERGY ORGANIZATION ACT

May 21, 1982

The AFL-CIO is opposed to the removal of regulatory authority over rates charged by pipelines transporting oil. Our concern in this matter is for consumers who must pay higher costs for oil products due to the lack of competition in pipeline transportation and the strong incentive pipeline owners have to engage in anticompetitive practices which reduce competition in product markets.

Oil pipelines are in essence public utilities given special privileges in terms of eminent domain for right-of-way and operate in a market where competition is restricted. In most cases, one to three pipelines supply oil to a given area. To operate efficiently in the public interest under these circumstances, rates must be regulated.

For many years, the Interstate Commerce Commission (ICC) did an inadequate job of regulating rates from a consumer interest point of view. The regulation of oil pipelines was turned over to the Federal Energy Regulatory Commission (FERC) in 1978. As a result of the interest of the courts and the FERC jurisdiction, new and positive steps have been taken to set rates in line with consumer interests.

Oil pipelines are dominated by major oil companies. A study prepared for the ICC staff in 1975 showed that the top 20 vertically integrated oil companies account for 95 percent of all crude oil transported by pipeline and 75 percent of product traffic. Of the 90 pipeline companies which reported $500,000 or more annual revenues, 81 were owned by vertically integrated oil companies or joint stock companies affiliated with one of more vertically integrated companies.

Concentration of ownership results from the enormous capital outlays required to build pipelines and the need to obtain throughput guarantees before constructing the lines. Control of crude oil and refineries by major oil companies means they can refuse to give independent pipelines the throughput guarantees they need to build pipelines.

Pipelines provide by far the most economical means of overland transportation of crude oil and products. Only tanker transportation is competitive where available. The result is that about 87 percent of domestic crude oil is delivered to refineries by pipeline, 11 percent by water and only 2 percent by rail or truck.

Crude trunk lines receive oil from the gathering systems and carry it to refineries. For most refineries these pipelines are the primary means of supply, and the crude trunk lines funnel the supply of crude into the hands of major integrated firms.

The 1967 Attorney General's Report on Interstate Oil Compact pointed out the strategic importance of the major oil companies' crude oil pipeline system. "The entire crude oil pipeline system is so dominated by the integrated companies that virtually all shipments, even if handled at the origin or near destination by one of the few independent lines, must have intermediate access to an integrated company line."

Oil companies have a powerful incentive to use their ownership of pipelines to increase their control over the market. A long history of abuses of that position are recorded by the difficulties independent shippers have had in getting access to pipelines at reasonable rates they need if they are to be competitive in major markets.

Access to pipelines is a critical issue but access may mean little if the rate charged by the pipeline is too high to enable the independent to compete in major markets with the pipeline owners.

The high rates that major oil companies charge themselves as shipper-owners represent only bookkeeping transactions as far as their costs are concerned, but they create a competitive disadvantage to independent shippers attempting to use the lines as common carriers. The excess profits made from the shipment of the independents' oil can be used to lower the majors' prices in the market and drive the independents out of business.

The rate standards that were used by the ICC which had authority to set rates prior to 1977 were extremely lax compared to regulated natural gas pipelines or electric and gas utility rates and have allowed unreasonably high prices which have hurt consumers and reduced competition from independent shippers. The high prices are reflected in rates of return which averaged 54 percent return on equity for the five years from 1967-1972. Returns have remained at extremely high levels up to the present time.

The standards for setting oil pipeline rates have been extremely lax since regulation began. The Hepburn Act of 1906 required pipelines to be common carriers equally accessible to all shippers, but rates were generally set at rail or barge rates, even though pipeline transportation costs might be far lower. In the 1940s the Justice Department tried to apply the Elkins Act which would have considered dividends paid to the pipeline owners as illegal rebates. World War II brought a quick settlement, and the Justice Department set a standard for dividends paid by pipelines. But the language of the settlement left a glaring loophole when it set a dividend limit of 7 percent of the total pipeline valuation.

This language in effect ignored the interest payments on debt, treating them as if they are not a return on investment. Thus, on a pipeline financed 90 percent by debt, dividends amounting to 7 percent of total valuation were a 70 percent return on equity.

The standards for rate setting have remained at 8 percent of total line valuation for crude pipelines and 10 percent for oil product lines set in the 1940s. Moreover, the rules allow different returns on different segments as long as total return meets the standard. This allows the pipeline to set lower rates where competition might exist and higher rates where there is no competition. This price-setting behavior has also allowed pipelines to injure barge and tanker transportation companies.

The Federal Energy Regulatory Commission took over responsibility for regulating oil pipelines in late 1977. In 1978 the D.C. Court of Appeals was highly critical of the rate of return allowed by the ICC on a case brought to its attention. The Court ordered FERC to review the methodology for determining rates in that case.

The attention of the Court may aid in bringing about more reasonable standards to setting rates. We hope that FERC will abandon the old standards for oil pipeline rates which have resulted in unreasonably high rates of return in favor of logical standards that set a reasonable return and do not include arbitrary increases such as those that compensate twice for interest expenses as the old standards do.

We believe it would be very helpful for the committee to conduct a thorough review of pipeline practices and rate-setting standards. There is a need for more current information and statistics. And recommendations should be made for stricter application of reasonable standards for rate setting.

Despite the problems with past regulatory policy, it is clear that the situation would have been worse without rate setting by the Federal Government. Consumers have benefited by the fact that pipelines have not been able to use their full monopoly power over rates. The FERC authority to regulate rates should remain in force. We believe that positive steps have been taken in Court decisions and FERC rulings to bring about pipeline rates in line with the public interest.

INDEPENDENT REFINERS' ASSOCIATION OF CALIFORNIA, INC.
900 WILSHIRE BOULEVARD · SUITE 1024 · LOS ANGELES, CALIFORNIA 90017
(213) 489-5555 TLX 68-8497 IRAC LSA

June 21, 1982

Honorable Gordon J. Humphrey
Chairman
Subcommittee on Energy Regulation
Senate Energy and Natural
Resources Committee
3106 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Humphrey:

The Independent Refiners' Association of California respectfully requests that the attached statement by this Association on the subject of Deregulation of Pipelines be included in the record in your consideration of S. 1626.

Thank you for your consideration.

Very truly yours,

James H. Lopeman
Executive Director

JHL/ejp

Enclosures

STATEMENT BY

INDEPENDENT REFINERS' ASSOCIATION OF CALIFORNIA, INC.

REGARDING

PRICE DEREGULATION OF PIPELINES

SUBMITTED TO THE
SENATE SUBCOMMITTEE ON
ENERGY REGULATION
AND
NATURAL RESOURCES COMMITTEE

June 1982 .

business. Unlike other forms of transportation, such as trucking (and to a lesser extent rail, barge and ship) in which the carrier can connect with a shipper or consignee on demand, a pipeline must be permanently connected to its customer. A "competing" pipeline offering service a few miles away from a customer's terminal might as well be in the next state. The cost of hooking up to the alternate line, especially in metropolitan areas were pipeline construction can run in excess of $1 million per mile if possible at all, means that a nearby line is really not an alternative at all.

Even in cases were two pipelines are available at the same facility, restrictions imposed by the carrier on what products or crudes can be shipped in the line often effectively cancel the apparent competition.

In most cases, other modes of transportation are so laden with drawbacks that they do not really represent viable alternatives to pipelines for petroleum transportation. In California, for example, the cost of transporting a barrel of crude oil from the San Joaquin Valley to the Los Angeles basin via pipeline is about $0.50 per barrel. The other alternative is trucking at a cost of about $2.00 per barrel. Since the pipeline charge is set by a government agency to allow an "adequate return" on assets employed, this difference in rates is vivid proof of the efficiency of the pipeline system.

Pipelines are not only economically efficient. They also offer clear advantages from environmental and safety points of view. Using trucks, for example, instead of pipelines represents an increased risk to public health and safety. To supply a twenty thousand barrel-per-day refinery (a modest size by industry standards) with crude oil would require one hundred thirty trucks, each loading and unloading, each entering and leaving both the shipping point and the destination and each making the round trip on the highways -- the equivalent of one truck every eleven minutes.

Perhaps the case of one of our members can illustrate the folly of trucking as an alternative to pipeline. Marlex Oil & Refining, Inc. (Marlex) operates a 19,000 barrel-per-day refinery at Long Beach, California. They are served by one -- and only one -- common carrier pipeline. They market some products which can be moved only by pipeline (because of odor), and they operate under firm restrictions from local authorities which limit the number of trucks entering their premises. We feel there is no realistic transportation alternative for Marlex or for hundreds of other shippers and consignees on the nation's pipeline system.

As independent refiners who operate refineries but do not, in general, participate in other petroleum activities such as crude oil production and petroleum transportation, we view with great alarm the fact that large integrated oil companies control the majority of pipelines in this country. Of all the miles covered by crude oil lines, for example, over 70% are in the direct and indirect control of our competitors, the large integrated oil companies.

In a deregulated environment, an owner would naturally operate his line to his maximum advantage. It might be to his advantage to apply a tourniquet to the aorta of his competitor.

The cost of transporting petroleum may be relatively insignificant as a percent of the total product value, but in relation to a refiner's operating margin, the increased rates which would surely follow deregulation are devestating. And, to a great extent, the penalty would be extracted only from the independents. The integrated oil company pipeline owners would merely be taking money from one pocket (their own refinery) and putting it in another (their own pipeline).

Deregulation of pipelines would not benefit the consumer and would likely harm him. To the extent that the net cost increase for petroleum transportation as a result of deregulation is passed to the consumer, it is a direct transfer from the public to the coffers of the major oil companies.

As we and others have been saying for some years, the continued health -- or more frankly, existence -- of independent refiners, who introduce a welcome competitive influence on the petroleum market, depends upon our access to equitably priced crude oil. Deregulation of pipelines poses a very real threat to our present, already limited position and would be, in short, devastating.

We respectively but forcefully urged that the Congress decline to take this disastrous course.

IRAC STATEMENT ON PIPELINE DEREGULATION

June 1982

The Independent Refiners' Association of California, Inc. (IRAC) is a trade association which has, for over 45 years, represented the interests of small and independent oil refiners on the West Coast. Directly and indirectly, the 14 IRAC member companies, together with our crude oil suppliers and refined product customers, depend on pipelines to provide efficient, safe transportation of petroleum. We object to the concept of pipeline rate deregulation adn to the suggestion of total decontrol because pipelines exert monopoly powers and because they are overwhelmingly controlled by the major oil companies.

Pipelines exert great market power because they are the most efficient, safe and economical method of transporting petroleum liquids. Yet today, very few petroleum liquid shippers or consignees have the advantage of choosing among "competing" pipelines. Many people have the mistaken idea that refineries generally have several available and competing pipelines from which to choose for receiving crude oil from a particular field or for transporting products to a particular market area. This is just not the case.

Competition from other pipelines almost never exists because massive capital cost together with right-of-way problems and permitting difficulties and delays have made the construction of competing pipelines between shipping points impossible in most cases. The Oil and Gas Journal (November 23, 1981) says average onshore liquid pipeline construction cost in 1979 was over $300,000 per mile! In building pipelines, it is out of the question to construct two or three smaller lines rather than one larger line to handle the same volume of material.

Just because two or more pipelines run between two different general areas does not mean they can compete for a shipper's

BEFORE THE

SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES

COMMENTS OF WILLIAM P. BUSH

PRESIDENT

MARATHON PIPE LINE COMPANY

ON S. 1626, THE DEPARTMENT OF ENERGY
ORGANIZATION ACT AMENDMENTS

My name is William P. Bush. I am President of Marathon Pipe Line Company, a position I have held since 1968.

It is very heartening to find a consensus developing between industry and government witnesses over the deregulation of oil pipelines. The testimony presented to this Subcommittee on May 21, 1982 unequivocably supports the position of the Association of Oil Pipe Lines that any continued attempt to regulate the level of rates of the competitive oil pipeline industry is not only unnecessary, costly, and anachronistic in terms of the trend of the last decade to remove burdensome government regulation from industry, but can actually be destructive. It is imperative for the economic vitality and defense of this country that there be new oil exploration, which requires an economic incentive for new oil pipelines to marginal fields, and that the current oil transportation network be expanded in order to increase mobility. The prospect of continued (and of even more intensive) regulation of the rate level of oil pipelines in any form is a serious deterrent to the achievement of those vital national objectives.

I have taken advantage of the offer of the Subcommittee to hold the record open until June 21, 1982 to receive additional statements in order to develop three points which I hope will be helpful to the Subcommittee in its deliberations on S. 1626. First, I would like to describe competition in the oil pipeline industry as seen from the standpoint of a medium to large company. Second, I will briefly discuss how oil pipelines are financed, the current necessity for joint ventures, and the relationship of those factors to deregulation. Finally, I will stress some of the reasons why it is urgent that deregulation be placed upon a faster track in order to eliminate a barrier to the required expansion of the oil pipeline industry.

COMPETITION

Other witnesses have traced the unique history of the regulation of oil pipelines. The Hepburn Act of 1906 put regulation in place as a "fallout" from the major focus of Congressional intent which was to break the railroad rate discrimination imposed by the Standard Oil Trust. Oil pipeline regulation, a relatively minor aspect of that legislation and not even the subject of any significant debate, was designed to stop the

Trust from requiring independent producers to sell their oil to the Trust if they wanted to ship over the vast transportation network it controlled. A quick solution to that problem of discrimination was to make oil pipelines common carriers under the Interstate Commerce Act, coupled with the imposition of a freer play of competitive forces by not imposing regulatory control over entry into the oil pipeline business.1/

For over seventy years the Interstate Commerce Commission, in a remarkable variance from the usual bureaucratic tendency to expand jurisdiction, did just what Congress intended. It did not make any effort to "fine tune" the level of rates as it did in the case of railroads and trucks, or as the Federal Power Commission did in the case of gas and electric utilities. Instead, the ICC was content with establishing general rate of return guidelines in the 1940s and thereafter applying what has been correctly called regulation "with a light touch." The results were extraordinary. Sufficient capital was raised to construct one of the most successful transportation systems in America. Shipper complaints were almost non-existent. Lengthy and expensive rate proceedings were avoided. No wonder Congress did not intervene at any time during this seven decade period to tell the Commission to do anything differently.

1/ United States v. Champlin Refining Co., 341 U.S. 290, 297 (1951); Johnson, Arthur M. Petroleum Pipelines and Public Policy -- 1906-1959 (1967) pp. 20-33.

One of the major reasons for the success of the "light touch" was because of the freer play of competition between oil pipelines permitted by Congress. The number of oil pipeline companies, and the competitive environment (both intramodal and intermodal) which exists today, are light-years away from what they were in the heyday of John D. Rockefeller I, back in 1906. Competition has become the principal determinate of rate level, and one of the apparent results has been that rates for the transportation over oil pipelines have increased at a rate far below any standard price index. Thus, the ICC recognized, and implemented, the principle that regulatory interference in the market place should be avoided when competition exists as the principal force behind the setting of reasonable rates.

This is the environment I have known in Marathon Pipe Line Company ever since I joined it in 1948. A succession of positions has involved me in laying pipe, buying rights-of-way, engineering, designing, constructing, managing, budgeting, and arranging financing for all different kinds and sizes of oil pipelines. I experienced a competitive industry and fully believe that most decisions affecting my company, including rate level, were based upon that fact.

That fact is still true. In the Williams case, currently pending before the Federal Regulatory Energy Commission, many oil pipelines have presented examples of the competitive environment within which they operate.[2] Some, however, said that this was not conclusive because only "examples" had been given. Accordingly, the Association of Oil Pipe Lines retained Professor Edward J. Mitchell, Professor of Business Economics of the University of Michigan, to prepare "A Study of Oil Pipeline Competition." That very detailed study has been submitted to this Subcommittee for inclusion in the record. It demonstrates unequivocably that the industry is competitive and is not a "natural monopoly." It also finds that profits of the industry have been reasonable -- near the median for U.S. industry -- and concludes that competition (not regulation) has been the principal constraint on price. Finally, the study demonstrates that there would be no significant changes in rates or profits with economic deregulation.

The Mitchell study is also supported by the statement before this Subcommittee of Christopher C. DeMuth, the Executive Director of the Presidential Task Force on Regulatory Relief. We fully agree with his conclusions that pipelines "normally compete with other pipelines;" that they "compete with . . . barges and tankers, whose costs are in the same range as those of pipelines . . . and move almost half of all refined products and about two-fifths of all crude oil;" that competition in the markets for crude and refined products constitutes a strong price constraint; that potential competition is an important constraint; and that the level of industry profits does not appear excessive.

---

[2] Williams Pipe Line Company, Docket Nos. OR79-1.

The testimony of Michael Butler, the Chairman of the Federal Energy Regulatory Commission, also reflects the continued existence of powerful intermodal and intramodal competition forced by the oil pipeline industry.

In the light of this testimony there should no longer be any dispute that competition is the principal determinant of rate level for the oil pipelines industry. This conclusion is also supported in the record of this Subcommittee by some specific examples of competition encountered by smaller and/or independent oil pipelines. I think it would be helpful, however, to supplement those examples with the case history of a specific pipeline system with different characteristics: Platte Pipe Line Company which is a corporation owned by five oil companies, including Marathon.

Platte was incorporated in 1950 and serves an area between the Rocky Mountains and the Midwest. The history of this line will show how in the "real world" of oil pipeline construction, external events -- most particularly actual and potential competition -- can change the economics of an oil pipeline, and will demonstrate that the operations of oil pipelines closely resemble those of companies in the environment of free enterprise, rather than those of natural monopolies where the government must substitute itself for the free market to set prices.

Planning the Platte Pipe Line. Service Pipe Line (Amoco) was serving the Rocky Mountain/Midwest area at the time with a line of 50,000 b/d capacity the Platte line was envisioned. With an original capacity of over 100,000 b/d, Platte was designed to provide a competitive market for transportation of the area's crude oil to Midwest oil refiners. Area reserves were then approximately 1.3 billion barrels and, as anticipated, the new line stimulated further exploration and development in the area. Platte was the first major pipeline built for the purpose of transporting crude oil to an area market rather than providing a source of crude oil to a refinery.

Construction difficulties. The project was conceived prior to the Korean conflict. A national emergency was declared before the pipe could be delivered and a governmental stop-gap policy diverted steel to military use. When the Controlled Materials Plan was eventually imposed, Platte was certified as essential to the national defense. Steel supply was very tight and pipe originally scheduled to be delivered during the first half of 1951 was rescheduled to July of 1952. The last pipe was further delayed by a steel strike and did not arrive until October. The line was finally ready for operation and the first oil reached Wood River, Illinois, on December 8, 1952.

Competition. The Platte system originally had a delivery capacity of 105,000 b/d. Deliveries on the system increased rapidly following start-up, and additional booster stations and pumping equipment were installed to increase the long haul capacity to 171,000 b/d in 1953. Additional construction was planned to increase this capacity to 192,000 b/d. While Platte was in the midst of installation and planning for this additional capacity, two competing pipeline facilities were built. The 50,000 b/d Amoco system was replaced with 22-inch and 24-inch line and, when completed in 1954, had an estimated capacity of 125,000 to 130,000 b/d. This line roughly parallels the Platte system and is capable of serving approximately the same refining areas as Platte. The Arapahoe system, which is an 18-inch line from southwest Nebraska and northeast Colorado to Humbolt, Kansas, was placed in operation in March 1955 with an estimated capacity of 80,000 b/d. With the installation of these two competing facilities the deliveries on Platte showed significant decreases. Plans to increase the Platte capacity to 192,000 b/d were halted in midstream.

Then, in 1957 the Tecumseh Pipe Line was built from Griffith, Indiana, to Cygnet, Ohio. Volumes of about 20,000 b/d which had moved over the Platte system from Salisbury, Missouri, to Wood River, Illinois, were lost by Platte via other systems to Ohio. This was partially offset by increased field production levels caused by the Suez crisis.

Expansion. Several smaller lines were tied into Platte receiving points in 1958 and 1959 at Casper, Wyoming; Redington, Nebraska; Harrisburg, Nebraska; Glenrock, Wyoming; and Oregon Basin, Wyoming. In total, these lines increased Platte volumes about 10,000 b/d. In 1961, the Glacier Pipe Line from Cut Bank, Montana, to Byron, Wyoming, was connected to Platte. This allowed about 7,000 b/d of Canadian crude and condensate to be delivered to Platte. Volumes from these systems brought the system to an average of [illegible],000 b/d short and long haul deliveries in 1963. Thereafter, the volumes steadily decreased through mid-1967.

Significant new oil discoveries were made in southeast Montana and eastern Wyoming in late 1966. In addition, large volumes of Canadian crude started moving into the Platte system from the Glacier system and Butte system in 1972, reaching their maximum levels in 1974 when, during May, total deliveries of 231,000 b/d were achieved.

Contraction. With the curtailment of Canadian imports, the future for Platte Pipe Line again became bleak. Total volume deliveries averaged 107,959 b/d for the year 1975, less than half of the peak delivery rate attained in May 1974.

Platte is thus a good example of a pipeline whose varying fortunes have been the result of the forces of competition as well as extraneous and unforeseeable risks. Further, it is a noteworthy epilogue that the competing Arapahoe system, also a victim of falling volumes of crude oil, has been sold and converted to a natural gas pipeline. Such an alternative use of a pipeline in place is an unusual happenstance.

Can anyone read this history and conclude that oil pipelines are the type of companies which should be subject to rate regulation applicable to public utilities? Of course not! That is why economic deregulation is so reasonable for the oil pipeline industry.

One final note regarding competition. There is, to our knowledge, no "perfect" industry in the sense that pockets of monopoly might be found in any industry. But that fact is not a justification for abandoning the free enterprise system in the United States and replacing it with governmentally imposed price regulation. The same should be true in the case of rate regulation in the oil pipeline industry. Further, there is simply no evidence in the record before this Subcommittee -- or anywhere else to my knowledge -- which would demonstrate that the benefits of trying to keep a rate regulatory scheme in place to "take care" of whatever pockets of monopoly might exist in the oil pipeline industry would even offset the huge cost of such administrative regulation. Finally, as all witnesses before this Subcommittee have agreed, transportation costs have only a miniscule effect upon the ultimate price to the consumer -- the "price at the pump." There is, therefore, no justification for either a continued or intensified regulation of the rate level of oil pipelines.

JOINT VENTURES

It is important to eliminate any implication that larger oil pipeline companies should remain under rate level regulation, particularly if they are owned by an oil company or a group of oil companies. Nothing could be more unrealistic or unjustified. Because large companies are just as competitive as small companies, and because competition is the primary determinant of the rate level of both small and large companies, deregulation must be put in place for all oil pipelines.

As background for making this important point, it should be noted that when Congress was considering, back in 1906, the inclusion of oil pipelines under the Interstate Commerce Act, it had before it the alternative of including oil companies under the "commodities clause" amendment prohibiting carriage by "common carriers" of products in which they have an interest. Congress specifically refused to put oil companies under the "commodities clause" thereby permitting them to finance and own oil pipelines in which their, and other shippers', oil could be carried.[3/]

[3/] Johnson, Arthur M. Petroleum Pipelines and Public Policy -- 1906-1959 (1967) (pp. 28-31).

The wisdom of Congress in thereby permitting the development of integrated oil pipeline companies can neither be disputed nor underestimated. The bulk of the funds for the construction of oil pipelines has come from oil companies and the industry has thus been able to raise the necessary capital to construct a transportation system which has permitted the flow of energy to all parts of the nation. The reasons why this is so are quickly evident from a review of the risks of the oil pipeline industry beginning with basic economic imperatives, many of which have already been illustrated in my recitation of the history of the Platte Pipe Line Company:

- Most oil pipelines are high volume, inflexible, capital intensive modes of transportation. They are generally not built in an area until the basic market demand has already developed or is expected to be developed. Major pipelines, to be viable, must be constructed from increasing and steadily available supply areas to markets which are expected to grow. Construction of a pipeline to a market can be justified only if the transportation cost is competitive with that of the existing supply systems.
- These considerations are as applicable to additional lines as they are to the first line into an area. In the case of additional lines, the

new line must be a competitive vehicle to supply the expanded volumes or it will fail to attract the necessary barrels to make it economic.

- In growing markets, all lines, at the outset, will be built with sufficient capacity to transport for all shippers not only volumes then available, but additional volumes that are expected to be available for shipment in a reasonable time. There are significant economic costs whenever a pipeline system's capacity does not fit the market need. If the pipeline is too small, the company may be forced to operate in an inefficient throughput range with higher unit costs. If the pipeline is too large, the construction and unit transportation costs will be higher than the demand justifies. Therefore, there are strong incentives for a pipeline company to size the pipeline optimally to meet demand. If it does not, its unit costs may make it vulnerable to competition from other transportation sources -- including another pipeline which is more economical because it is appropriately sized to meet the demands of the market.
- The oil market is a layered market -- crude oil and refined products. Although separate,

these two actually compete with each other in supplying the eventual consumer. The demand for crude oil is derived from the demand for products. Therefore, crude supply via a major pipeline competes on a comparable cost basis with refined product lines, and with efficient waterborne transport of domestic or foreign crude and receipts of product by any other form of transportation. On the other hand, a major product line competes with not only other product lines and efficient waterborne transportation of products, but also with crude oil delivered efficiently to and refined in the market area. A new refinery located in a market area is a direct competitor and would greatly reduce the utilization of the product system. Further, in both categories, each line faces potential competition from duplicating pipelines.

o Economics compel the construction of the largest-diameter pipeline possible. The economies of scale are so great that should a line be built too small, it would soon lose its business to a large diameter pipeline that would be better able to meet demand.

- Finally, in addition to evaluating economic factors in considering whether to construct a new oil pipeline, there is the critical question of an in depth evaluation of risk. This is so because financial commitments for pipeline construction generally range from 20 to 30 years or more. If actual shipments fail to meet projections and/or tariffs fail to cover costs, including a return on investment, there still remains the necessity to meet a heavy front-end investment. This exposure is substantial because pipelines are so highly capital intensive. Substantial costs means increased risk for, if one "guesses wrong," huge losses can be involved.
- These risks are substantial. There are some supply/demand risks within the ambit of normal business risks and susceptible to economic forecasting. But the potential margin of error, coupled with those risks beyond the control of management, are also substantial. My earlier recitation of the history of the Platte/Arapahoe pipelines is illustrative of only a few of those risks. That history does not even touch upon all of

> the current potential risks such as the development of new energy resources, and political embargoes (such as the OPEC embargoes).

Given these perceptions of risk, history has proven that major pipelines would not have been built if petroleum companies having the need did not underwrite the risks of construction and provide the related financial assurances required by lenders. The simple fact of the matter is that if a new oil pipeline, particularly a large one costing billions of dollars, is required, the oil companies could sit around until doomsday waiting for some banking group or some local entrepreneurs to come in and build the line.

Moreover, it must be recognized that when the oil companies undertake the risks of new construction, it is the consumer who benefits. The only reason why oil pipelines are constructed is to provide a more economical means of transportation to the alternative means currently available. This was true for the Colonial and Capline pipelines; it was for TAPS; and it will be true for the next oil pipeline constructed.

Vertical integration and joint ventures have, therefore, become an economic fact of life of the oil pipeline industry without which there would simply not be, or continue to be, such an industry. But that fact has in no way changed the competitive nature of the industry -- simply its structure. The "big" joint venture, vertically integrated, oil pipelines compete just as strongly as do the smaller ones. In other words, "bigness" has not eliminated competition. On the contrary, it has simply made it more intensive -- and the results more significant -- as was the case when Plantation lost millions of dollars in competition with Colonial. Both of these companies were "big" and both were "integrated."

EXPEDITION

Finally, if competition is the primary determinant of the rate level of oil pipelines, the question might be asked "what's the hurry about eliminating rate regulation?"

The answer is simple. American corporations do not make million or billion dollar investments blindly. They make a cash flow analyses to determine probable earnings, and make a decision, for or against, depending upon the results, frequently in comparison to other available investment opportunities.

The oil pipeline industry is in an impossible situation at this time. As I indicated earlier, throughout my professional life competition has always been the primary factor in rate level and has always been an important factor in construction decisions. However, an additional uncertainty has crept into the system. Some rates of Williams pipeline were challenged by shippers early in the 1970s -- the first such challenge of the reasonableness of oil pipeline rates in decades. A reviewing court suggested that oil pipeline rate regulation -- particularly its methodology -- should be reviewed.[4] Then, when the Department of Energy Organization Act of 1977 transferred jurisdiction over oil pipelines from the ICC to the Federal Energy Regulatory Commission within the DOE, some urged (erroneously, in our view) that the court decision required a change, not just a review, of regulatory methodology. A case was instituted to determine what rate-making principles should be applied to oil pipelines and the "light touch" applied by the ICC for decades appeared to be seriously threatened by the substitution of utterly inapplicable public utility type regulation. Today, years later, that case is still pending before the Federal Energy Regulatory Commission.

These events have placed the oil pipeline industry in an impossible position: rate increases have been suspended subject to refund pending the F.E.R.C.'s decision -- there are now over 2,000 such suspensions, and uncertainty about what kind of rate methodology will be adopted has left the industry without the foggiest idea of what kind of earnings to be expected from new construction.

Such a situation cannot continue if necessary new construction of oil pipelines costing billions of dollars is to be undertaken in America. Without some knowledge of potential earnings, construction (and hence exploration) in marginal areas may be delayed. Nor can it be assumed that just because it would be more convenient, and cheaper, for an oil company to finance, or participate in the financing with other oil companies, of a new line, such a line will automatically be built whatever rate regulation scheme is in effect. Finance committees of oil companies have a wide range of investment and expansion opportunities before them and an oil pipeline with an uncertain earnings future may be rejected.

---

[4] Farmers Union Central v. Federal Energy Regulatory Commission, 584 F.2d 408 (D.C. Cir.), cert. denied, 439 U.S. 995 (1978).

It is also important to emphasize, however, that such a situation will by no means be eliminated simply by a decision in the Williams case. Assuming, as we all do, the most favorable (and sensible) decision would be to retain the current valuation rate base methodology used by the I.C.C., the question still remains of the level of the rate of return which will be authorized by the Commission. Investors' perception of inflation rates are changing all of the time -- unfortunately, to levels heretofore unknown in recent history. Under these circumstances it is difficult to assure the absence of a lag between actual inflation and its eventual reflection in authorized rates of return. Nor can there be any assurance of the political acceptability of rates of return accurately reflecting prevailing inflation rates. And even assuming some kind of rate of return guidelines were established to cover the problem of "lag," there is always the concern that administrative attitudes will change.

We must keep in mind in this regard that the decision to build or expand a pipeline -- or not to do so -- is in reality a 20 to 30 year investment decision.

Thus, the Williams decision, even assuming the best of all possible outcomes, will be no answer to deregulation now. Williams will only purport to answer problems which do not exist and, instead, bring in a whole new set of problems. There is only one answer. There should be no regulation whatever of the rate level of the oil pipeline industry when, as is the case here, competition is and will continue to be the primary determinant of rate levels.

I want to thank the Committee for the opportunity to present this statement. Deregulation is vital to the future of this industry.

TRANSPORTATION ASSOCIATION OF AMERICA

Transportation's Preeminent, Authoritative Voice in Washington

ROBERT HENRI BINDER
PRESIDENT

June 11, 1982

Honorable Gordon J. Humphrey
Chairman, Energy Regulation Subcommittee
Senate Energy & Natural Resources Committee
Washington, D.C. 20510

Dear Chairman Humphrey:

Enclosed is a statement expressing the views of the Transportation Association of America (TAA) in support of S. 1626, the Department of Energy Organization Act Amendments of 1981. TAA support is specifically directed at provisions in this bill that would give common carrier oil pipelines greater ratemaking freedom, clarify the authority of the Federal Energy Regulatory Commission (FERC) over such pipelines, and retain common carrier obligations on this industry to provide impartial and non-discriminatory service.

The TAA statement describes in some detail the highly competitive energy field in which oil pipelines now operate and face in the immediate future. Reference is made to those modes of transport (water, truck, rail, gas pipeline, etc.) that compete both directly for petroleum traffic and indirectly for the transportation of other forms of energy (coal, natural gas, compressed gas, etc.).

TAA believes that passage of S. 1626 would be in the public interest and represents a continuation of the trend toward less regulation in the transportation field that Congress started in 1977 with domestic air cargo, extended in 1979 to domestic air travel, and broadened further in 1980 by passage of sweeping regulatory reforms for motor carriers of freight and railroads.

We request that this letter and the enclosed statement be included in the transcript of hearings on S. 1626.

Respectfully,

Enclosure

cc: Members of Senate Energy &
Natural Resources Committee

USERS · INVESTORS · AIR CARRIERS · FREIGHT FORWARDERS
MOTOR CARRIERS · PIPELINES · RAILROADS · WATER CARRIERS

SUITE 1107 · 1100 17th STREET, N.W.
WASHINGTON, D.C. 20036 · (202) 296-2470

STATEMENT OF ROBERT HENRI BINDER
PRESIDENT, TRANSPORTATION ASSOCIATION OF AMERICA
TO THE SUBCOMMITTEE ON ENERGY REGULATION OF THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
ON S. 1626
DEPARTMENT OF ENERGY ORGANIZATION ACT AMENDMENTS OF 1981
JUNE 11, 1982

The Transportation Association of America (TAA) supports the passage of S. 1626, the Department of Energy Organization Act Amendments of 1981, which is designed to clarify the jurisdiction of the Federal Energy Regulatory Commission (FERC) with respect to common carrier petroleum pipelines and to ease economic regulation of this industry in the ratemaking area.

TAA is a national transportation policy organization composed of transport shippers, suppliers, investors, and carriers of all modes (air, freight forwarder, motor, pipeline, rail, and water) who work together to develop and implement national policies designed to maintain the strongest possible U.S. transportation system under private enterprise principles. The policies on which TAA views are based are adopted by an 80-member TAA Board of Directors (see current roster attached) following careful review and separate recommendations by eight permanent panels representing the above-mentioned transportation interests.

The TAA Board has adopted a number of policies that apply to and thus support the objectives being sought by this legislation. More specifically, TAA supports changes being proposed in S. 1626 relating to the following:

Greater Ratemaking Freedom - S. 1626 would give common carrier petroleum pipelines greater freedom to establish and adjust their rates in response to today's highly competitive energy field. FERC would continue to have the power to ensure that such rates are not unjustly discriminatory or unduly preferential or prejudicial; and it could, after investigation, issue a cease and desist order to bar the use of any discriminatory, preferential, or prejudicial rates.

Such a change is in line with policies adopted by the TAA Board that favor greater reliance on competition, with carriers given broad freedom from regulation to set their rates and to make adjustments on short notice. This TAA policy, similar to S. 1626, calls for the continuation of regulation to prevent the carriers' use of discriminatory or preferential rates.

We understand that well over 2,000 tariff filings by oil pipeline companies at the FERC have been permitted to take effect, following a one-day suspension, only on the basis of their being subject to future investigation and possible refunds to shippers. We further understand that this action was taken, in virtually every instance, on FERC's own initiative -- rather than on the basis of shippers' complaints.

To compound this rate instability, FERC has, after several years, still not resolved the question of a proper rate base for oil pipeline companies. Therefore, legislation such as proposed in S. 1626 would help remove these unstable factors in the ratemaking area by giving the oil pipeline industry broad ratemaking freedom to compete in a highly competitive and ever-changing energy marketplace. Carriers should be able to make important management policy decisions with greater certainty. Furthermore, the strong competitive pressures in the energy field -- about which more will be said later in this statement -- should ensure that oil pipeline rate levels are reasonable.

Authority of Federal Energy Regulatory Commission - As we interpret S. 1626, it would make it clear that FERC would have exclusive regulatory powers -- to the extent that they exist -- over interstate common carrier petroleum pipelines. While the Commission would remain within the Department of Energy for housekeeping purposes, FERC would assume all functions relating to the regulation of such pipelines that presently are vested in DOE as an executive agency.

This action is clearly in line with a long-time TAA policy calling for the economic regulation of interstate transport modes by regulatory agencies independent of the control of the executive branch of the Federal Government. Accordingly, any legislation that will increase the independence of FERC -- to encourage impartiality and to minimize political influence -- in this area has the support of this Association.

Federal Preemption - S. 1626 would not only retain FERC's authority to set aside state regulations and practices that discriminate against interstate common carrier petroleum pipelines, but it would also preempt any state or local governmental agencies' attempts to regulate the rates, regulations and practices of such pipelines.

TAA strongly believes that such preemptive powers are needed in the interstate transport regulatory area. With about 130 companies operating about 227,000 miles of petroleum pipelines in 49 of the 50 states of this country, and transporting more than half of the nation's total petroleum traffic, this industry is far too important to be subject to possible regulatory Balkanization. To help ensure adequate petroleum supplies, interstate oil pipelines should be subject to as uniform regulatory standards as possible -- which can best be done through exclusive Federal regulation.

Common Carrier Obligations - It should be emphasized that S. 1626 makes it clear that common carrier oil pipelines will continue to offer service to shippers on an equal basis. In other words, these carriers will continue to assume what are generally called "common carrier obligations"; e.g. provide and furnish transportation upon reasonable request, establish reasonable through routes with other oil pipelines, provide reasonable facilities to shippers, etc. Also, FERC will continue to have adequate power to require reasonable and non-discriminatory rules and practices governing carriers' services and operations.

The retention of such powers in FERC should make it clear that oil pipelines will continue to provide adequate service to the general public on an impartial basis.

OIL PIPELINES OPERATE IN A HIGHLY COMPETITIVE ENERGY FIELD

Since the justification for giving oil pipeline companies greater ratemaking freedom is based on the premise that competition will ensure the reasonableness of their rates, some additional comments should be made about the nature of competition in this field:

.. Oil pipelines compete among themselves. There are approximately 130 pipeline companies operating in interstate commerce.

While most of them do not have parallel lines with other oil pipelines, many of the crude lines serve the same refining areas of the country, and thus provide competitive service from different sources of supply. Similarly, many of the products lines serve the same marketing areas of the country -- and thus compete.

In 1975, oil pipelines handled nearly 60 percent of the total number of ton-miles of crude and products petroleum traffic, in terms of ton-miles; but in 1979 they handled slightly less than 52 percent. They obviously are not immune from competitive pressures in the oil transport field.

.. Water carriers are major competitors of oil pipelines. In the domestic U.S. transport field, water carriers have more than held their own in competing with oil pipelines for petroleum traffic. In 1975, water carriers handled 35 percent of total U.S. petroleum ton-miles, which share increased to nearly 45 percent in 1979. In the latter year, according to the Maritime Administration, there were 168 oceangoing tankers of 1,000 gross tons and over engaged in the U.S. domestic trades, including both coastal and intercoastal movements. In addition, there were 22 such tankers temporarily laid up and another 20 in the reserve fleet.

In the inland waterway field, according to the U.S. Army Corps of Engineers, there were 4,000 large tank barges in operation during 1979, with an average capacity of nearly 2,600 net tons. Over three-fourths of these large tank barges operated on the Mississippi River System (Ohio River, Missouri River, Arkansas River, etc.) and thus were actual or potential competitors to oil pipelines serving points along these important inland waterways.

Also of importance is the fact that, unlike oil pipelines, both domestic offshore and inland water carriers are completely free to set rates for the movement of petroleum beyond the regulatory control of the Interstate Commerce Commission. Thus, S. 1626 should place oil pipelines on a more equal competitive footing from the standpoint of rate competition.

While the transportation of crude oil and petroleum products by domestic U.S. water carriers represents about 47 percent of such carriers' total tonnages and 64 percent of their total ton-miles, these carriers also haul large quantities of coal -- a major competing form of energy. This dry-bulk coal traffic, like waterborne liquid-bulk traffic, is moved at rates that are not regulated by the Interstate Commerce Commission.

Truck Competition

.. Tank truck carriers represent a strong competitor to oil pipelines in the short-haul markets. Thousands of such trucks compete with the smaller crude oil gathering pipelines that feed into larger trunk pipelines; and they also compete with products pipelines in the distribution of petroleum products to markets from refineries and water terminals.

.. Natural gas pipelines offer major substitute energy in competition with oil pipelines. According to the Department of Energy, in 1978 there were over 190,000 miles of interstate natural gas pipelines in operation throughout the United States. Unlike oil pipelines, which are common carriers that must serve the general public, natural gas pipelines are individual entrepreneurs which buy, transport, and sell their products. In 1978, for example, these companies generated nearly $26 billion in operating revenues, about $1.5 billion of which was spent for operating and maintaining their transmission lines.

.. Railroads are minor competitors for transporting petroleum, but the nation's largest mover of coal. While the railroad industry handles only about 1.2 percent of the intercity ton-miles of petroleum transported in the U.S. (0.1 percent of crude petroleum and 2.4 percent of petroleum products in 1979), railroads are now in a better position to offer competition. This is because of the removal by Congress, in the Staggers Act of 1980, of many regulatory constraints. Most significantly, the railroads have been given much greater freedom to offer contract services to attract large volumes of traffic over specified periods at lower rates. Utilizing such innovations such as the Tank Train -- which consists of a train consisting entirely of specially built tank cars linked by a unique flexible hose system that permits very rapid loading and unloading at a single outlet -- the railroad industry has the potential to increase its share of the petroleum products transport market.

More significantly from the standpoint of competition in the energy field, the railroad industry is the nation's largest transporter of coal. Furthermore, railroads foresee a great future in coal traffic because of the huge quantities of coal resources in the U.S. The competitive pressures to encourage the substitution of abundant coal supplies for diminishing petroleum supplies should help to keep prices of both forms of energy within reasonable levels.

.. Other competitors may enter the energy transport field in the near future. For example, we soon may see the construction of several large and long-distance coal-slurry pipelines, which would compete with both railroads and petroleum pipelines. In the more distant future, far more energy is expected to be moved in interstate commerce through electric transmission lines.

It is quite apparent that the field of transportation of energy is a highly competitive one now and should be more so in the future. Carriers transporting energy thus need freedom and flexibility to compete on both a service and rate basis.

Summary

Passage of S. 1626 would, in TAA's view, give common carrier oil pipelines the freedom and flexibility to continue to compete in the highly competitive energy field. Provisions in the bill provide adequate protections in the public interest against discriminatory, preferential, or prejudicial rates; and they also require the furnishing of adequate services to all users of such pipelines. Future oil pipeline rate levels should remain reasonable -- as in the past -- because of the growing competition in the energy transport field.

TAA appreciates the opportunity to express its views on this important legislation and requests that this statement be included as part of the official record of hearings on S. 1626.

TRANSPORTATION ASSOCIATION OF AMERICA

Board of Directors

JUNE 1982

G. Russell Moir – Chairman
Vice Chairman of the Board
Transway International Corporation
New York, New York

Robert Henri Binder – President
Transportation Association of America
Washington, D.C.

Harold L. Albrecht
Vice President
Purchasing and Transportation
Reynolds Metals Company
Richmond, Virginia

Frank E. Barnett
Director
Union Pacific Corporation
New York, New York

Wesley J. Barta
Chairman of the Board
The Valley Line Company
St. Louis, Missouri

Henry Bartholomay III
Senior Vice President and Director
Alexander & Alexander Inc.
Chicago, Illinois

Robert A. Belanger
Senior Vice President
Bank of America
New York, New York

Isabel H. Benham
President
Printon, Kane Research, Inc.
New York, New York

Gerald K. Bergman
Executive Vice President
Continental Illinois National Bank
& Trust Company of Chicago
Chicago, Illinois

William H. Broderick
Manager, Distribution
and Traffic Department
Mobil Oil Caporation
Fairfax, Virginia

Curtis D. Buford
President and Chief Executive
Officer
Trailer Train Company
Chicago, Illinois

Keith D. Bunnel
Senior Vice President
Transportation Products Business
American Standard, Inc.
Pittsburgh, Pennsylvania

Vincent C. Burke, Jr.
Chairman of the Board and
Chief Executive Officer
The Riggs National Bank of
Washington, D.C.
Washington, D.C.

Ivan A. Burns
President
ACF Industries, Incorporated
New York, New York

H. T. Chilton
President
Colonial Pipeline Company
Atlanta, Georgia

Thomas T. Church
Vice President, Transportation
Bethlehem Steel Corporation
Bethlehem, Pennsylvania

Robert B. Claytor
Chairman and Chief Executive
Officer
Norfolk Southern Corporation
Norfolk, Virginia

Patrick H. Corcoran
Executive Director
Association of Oil Pipe Lines
Washington, D.C.

L. Stanley Crane
Chairman and Chief Executive
Officer
Consolidated Rail Corporation
Philadelphia, Pennsylvania

John A. Creedy
President
Water Transport Association
New York, New York

James T. Crowley
Senior Vice President
Moore-McCormack Lines, Inc.
New York, New York

William H. Dempsey
President and Chief Executive
Officer
Association of American Railroads
Washington, D.C.

L. L. Dintiman
Director-Corporate Distribution
Union Carbide Corporation
New York, New York

Newell C. Dunn
Manager of Traffic, Supply
Department
Exxon Company, U.S.A.
Houston, Texas

Richard J. Ferris
Chairman and Chief Executive
Officer
United Airlines, Inc.
Chicago, Illinois

Ralph H. Fletcher, Jr.
Vice President
The Equitable Life Assurance
Society of the United States
New York, New York

Robert J. Frullo
President
Freight Forwarders Institute
Washington, D.C.

A. Paul Funkhouser
President
CSX Corporation
Richmond, Virginia

Dr. Gayton E. Germane
1907 Foundation Professor
of Logistics
Graduate School of Business
Stanford University
Stanford, California

David E. Gile
Senior Vice President
Marine Midland Bank
New York, New York

James M. Goff
President and Chief Executive
Officer
General American Transportation
Corporation
Chicago, Illinois

G. Zen Golden
Senior Vice President
North American Van Lines, Inc.
Fort Wayne, Indiana

Richard C. Grayson
Chairman and Chief Executive
Officer
Burlington Northern Railroad
Company
St. Paul, Minnesota

Thomas H. Green
General Manager, Chemical
Logistics and Manufacturing
Shell Oil Company
Houston, Texas

Donald G. Griffin
Vice President-Distribution
and Transportation
PPG Industries, Inc.
Pittsburgh, Pennsylvania

Donald W. Griffin
Executive Director Logistics
Operations
General Motors Corporation
Troy, Michigan

Frank L. Grimm
Bethesda, Maryland

Peter S. Hadley
Senior Vice-President
Metropolitan Life Insurance
Company
New York, New York

Charles R. Hall
Chairman and Chief Executive
Officer
Rollins Burdick Hunter Co.
Chicago, Illinois

Harold H. Hall
President and Chief Operating
Officer
Norfolk Southern Corporation
Norfolk, Virginia

Harold F. Hammond
Senior Advisor
Transportation Association
of America
Washington, D.C.

James H. Harris
Senior Vice President
The Chase Manhattan Bank, N.A.
New York, New York

John E. Harris, Jr.
Vice President Petroleum Supply
Phillips Petroleum Company
Bartlesville, Oklahoma

Richard Haupt
Director, Transportation and
Traffic Office
Ford Motor Company
Dearborn, Michigan

J. W. Hershey
Chairman of the Board
American Commercial Lines, Inc.
Houston, Texas

Carl H. Hirsch
Vice President, Corporate
Planning
Dana Corporation
Toledo, Ohio

J. Robert Hoan
General Manager of
Transportation
Aluminum Company of America
Pittsburgh, Pennsylvania

Paul R. Ignatius
President and Chief Executive
Officer
Air Transport Association
of America
Washington, D.C.

James E. Isbell, Jr.
Director, Transportation
FMC Corporation
Chicago, Illinois

Vernon T. Jones
Executive Vice President
The Williams Companies
Tulsa, Oklahoma

Jack R. Kruizenga
President
Pullman Standard
Chicago, Illinois

Ira O. Lewis
Executive Vice President–Financial
and Government Relations
Farrell Lines, Incorporated
New York, New York

Albert E. May
Executive Vice President
Council of American-Flag Ship
Operators
Washington, D.C.

C. James McCormick
Vice Chairman of the Board
Sundance Transportation Company
Vincennes, Indiana

Frank L. Merwin
Vice President
ASARCO Incorporated
New York, New York

Frank L. Nageotte
Chairman of the Board and
Chief Executive Officer
Greyhound Lines, Inc.
Phoenix, Arizona

Robert P. Neuschel
Director, Transportation Center,
and Professor of Management
Northwestern University
Evanston, Illinois

John H. Norton
Director
Transportation & Distribution
Department
E.I. du Pont de Nemours &
Company, Inc.
Wilmington, Delaware

Raymond F. O'Brien
Chairman and Chief Executive
Officer
Consolidated Freightways, Inc.
Palo Alto, California

Frank A. Olsen
Chairman
The Hertz Corporation
New York, New York

Roy E. Olsen
Vice President-Transportation
American Paper Institute, Inc.
New York, New York

W. E. Olson
Vice President, Purchasing and
Transportation
Minnesota Mining and
Manufacturing Company
St. Paul, Minnesota

Daniel H. Overmyer
President
D. H. Overmyer Company, Inc.
New York, New York

J. A. Parker
Vice President
Operations Planning and
Transportation
Amoco Oil Company
Chicago, Illinois

V. L. Petersen
Vice President
The Goodyear Tire & Rubber
Company
Akron, Ohio

Laurence A. [illegible]
First Vice President
The First National Bank of Boston
Boston, Massachusetts

John S. [illegible]
Chairman
The Atchison, Topeka & Santa
Fe Railway Company
Chicago, Illinois

Henry E. Seyfarth
Partner
Seyfarth, Shaw, Fairweather &
Geraldson
Chicago, Illinois

Norman Sherlock
President and Chief Executive
Officer
American Bus Association
Washington, D.C.

R. R. Smith
Chairman of the Board
and Chief Executive Officer
Smith's Transfer Corporation
Staunton, Virginia

Robert E. Smith
Vice President
United Parcel Service
Greenwich, Connecticut

Wilbur S. Smith
Chairman
Wilbur Smith and Associates, Inc.
Columbia, South Carolina

William K. Smith
Vice President-Transportation
General Mills, Inc.
Minneapolis, Minnesota

William I. Spencer
President
Citibank, N.A.
New York, New York

Glenn E. Stinson
Senior Vice President-Sales
and Marketing
Railroad Products Group
Abex Corporation
Chicago, Illinois

Richard L. Thomas
President
The First National Bank
of Chicago
Chicago, Illinois

Robert E. Thomas
Chairman of the Board
MAPCO Inc.
Tulsa, Oklahoma

George F. Tidmarsh
Vice President-Physical
Distribution
Sears, Roebuck and Co.
Chicago, Illinois

F. B. Vernor
Vice President-Traffic and
Transportation
United States Steel Corporation
Pittsburgh, Pennsylvania

Michael J. Walsh, Jr.
Vice President
Transportation & Distribution
St. Regis Paper Company
West Nyack, New York

Hays T. Watkins
President
CSX Corporation
Richmond, Virginia

Bennett C. Whitlock, Jr.
President
American Trucking Associations,
Inc.
Washington, D.C.

H. Dillon Winship, Jr.
Chairman of the Board
Georgia Highway Express, Inc.
Atlanta, Georgia

Charles F. Zodrow
Chairman of the Board
Roadway Express, Inc.
Akron, Ohio

ARCO Pipe Line Company
515 South Flower Street
Los Angeles, California 90071
Telephone 213 486 1322

R. B. Hastie
Senior Vice President
Manager, Alaskan Division

June 16, 1982

The Honorable Don Nickles
Senate Office Building
2104 Dirksen
Washington, D.C. 20510

Re: Senate Committee Hearing on S.1626,
Petroleum Pipeline Regulatory Reform
Legislation, May 21, 1982

Dear Senator Nickles:

This letter is in response to a request by Senator Murkowski at the subject hearing for companies with an ownership interest in TAPS to provide, for the record, their individual company position on oil pipeline deregulation. ARCO Pipe Line Company supports deregulation of petroleum pipeline rates as proposed in S.1626 and Amendment No. 1239, and clarification that dividends paid by pipeline companies to shipper-owners are not in violation of the law. Specifically, we support (1) economic deregulation of all oil pipelines including the Trans Alaska Pipeline System (TAPS), (2) no reregulation of specific pipelines, and (3) continuance of the common carrier provisions of the Interstate Commerce Act. In addition, we strongly favor an amendment to clarify the dividend payments issue. These are all a part of pipeline deregulation and, as such, a bill emerging from the Committee, lacking any of the provisions listed above, would not have our continued support.

Continuing economic regulations of Lower 48 and Alaskan pipelines fails to achieve any useful purpose, and requires the maintenance of a costly regulatory structure. These regulations unnecessarily inhibit new investments of an industry which is important to our national security and economic development.

The regulation of pipeline rates is unnecessary because the oil pipeline industry operates in an environment of intense competition which acts as a pervasive constraint on industry tariffs. Most pipelines are confronted with three types of competition: intramodal, intermodal and geographic. Intramodal competition occurs when two or more pipelines directly compete with one another to serve the same transportation markets. In intermodal competition, pipelines compete with other modes of transportation such as trucks, railroads, barges and tankers. In geographic competition, the availability of oil from alternative sources of supply generates competitive pressures on pipeline tariffs.

Those oil pipelines which are thought to be market dominant also face considerable competition. TAPS, for example, is owned in undivided interests by eight separate pipeline companies and each TAPS owner competes for business with the other carriers. Over the years as North Slope reserves and production decline, there will be pipeline capacity in excess of production, leading to increasing competitive pressures on TAPS tariffs. In addition, a competitive environment is created by the fact that North Slope crude competes with other domestic and foreign crudes in Lower 48 refining markets.

ARCO Pipe Line Company believes that economic deregulation of oil pipelines is justified on other grounds besides the issue of competition, as listed below:

- Pipeline industry earnings have not been excessive. We have not had an opportunity to analyze the debt structure of U.S. pipeline companies to compare earnings to current regulated rates of return; however, compared to the Consent Decree, our analysis shows that 60% of all U.S. oil pipelines earn less than the ceiling imposed by the Decree. Other studies have shown that oil pipeline companies' average returns on total capital are lower than many other industries including electrical and electronics manufacturing, communications, drugs, computers, photographic equipment, food products, and special and industrial machinery manufacturing.
- In the TAPS and Williams proceedings, the FERC staff has proposed restrictive rate regulations which could threaten the future ability of pipeline companies to attract sufficient capital for investments in new pipeline facilities. Oil pipelines do not have the same characteristics as public utilities; therefore, they should not be regulated in a similar fashion. Oil pipelines, unlike public utilities, are not franchised monopolies and they operate at higher levels of risks.

Honorable Don Nickles
June 16, 1982
Page 3

- Deregulation will not significantly affect the price of petroleum products to consumers. Pipeline transportation costs represent a small increment of the market price of petroleum products.

ARCO Pipe Line Company, however, does not favor total deregulation of the oil pipeline industry as proposed by some of the Administration witnesses who testified at the May 21st hearing. We support the concept of common carrier obligations because it serves the national interests and assures non-discriminatory usage of oil pipelines by all parties. If the common carrier provisions of the Interstate Commerce Act were not retained, interpretation and enforcement of common carrier obligations would be left to each of the individual states. This would mean that an interstate pipeline company would be subject to differing, and perhaps conflicting, obligations in each of the states in which it operates. Therefore, ARCO Pipe Line supports the continued codification of common carrier requirements in the Interstate Commerce Act to eliminate potential ambiguity and assure uniform interpretation.

ARCO Pipe Line Company believes that any pipeline deregulation legislation should address the issues raised by the vacation of the Consent Decree as proposed by the Justice Department and thus, should protect oil pipelines from future challenges for the payment of dividends.

I appreciate this opportunity to present my company's position on oil pipeline deregulation. As requested by Senator Murkowski, I recommend that a copy of this letter be placed in the record of the hearing.

Very truly yours,

RB Hastie

R. B. Hastie
Senior Vice President
ARCO Pipe Line Company

cc: Senator James McClure
Senator Frank Murkowski
D. B. Taylor

RECEIVED
SENATOR GORDON J. HUMPHREY
1982 JUN 17 AM 10:51

AGWAY
AGWAY PETROLEUM CORPORATION, BOX 4852, SYRACUSE, NY 13221

June 15, 1982

The Honorable Gordon J. Humphrey
United States Senate
Washington, D.C. 20510

Dear Senator Humphrey:

I have had the opportunity to review S.1626 and hereby respectfully request that the following be included in the record of the Senate Subcommittee on Energy Regulation hearing of May 25, 1982.

The Agway Petroleum Corporation has a vital interest in this proposed legislation and, due to the serious economic implications it can have for our farmer-members and those we serve in the rural community, we wish to register our opposition to its passage.

I am sure you are well aware that the agricultural community is under extreme economic pressure. The farmer has, for a number of years, seen the cost of inputs rise at an alarming rate without a corresponding increase in the price of agricultural products in the marketplace. Unfortunately, energy costs have significantly contributed to this severe cost-price squeeze. It requires a great deal of energy to produce food products and even a relatively small increase in the price of petroleum products translates into large dollar-cost increases for farmers.

In serving our farmer members and rural communities, Agway Petroleum Corporation is basically dependent on a single pipeline company which delivers crude oil and petroleum products to us which we in turn distribute. No other method of transporting crude oil or a refined product is as economically feasible as a petroleum pipeline. Therefore, the economic advantage enjoyed by most oil pipeline companies is of great concern to us and, we feel, warrants the retention of federal rate regulation.

Furthermore, market demand, in all probability, will remain fairly constant in most rural areas with a relatively fixed or reduced demand for product at a specific destination thereby making future competition from other new pipeline companies unlikely. It is clear that the first pipeline in the market (if that pipeline meets most of the minimum market requirements) will enjoy a cost advantage over potential competitors and thus discourage competition in that same market. What can result is that first pipeline becoming monopolistic in the market and, in the absence of economic rate regulation, having the power to extract excessive tariffs from their customers and shippers.

Pipeline ownership is dominated by major, vertically integrated oil companies which use them to transport their own products. Under current federal rate regulation, shipper-owners and non-owner shippers pay the same tariff. However, shipper-owners are at a distinct competitive advantage because that portion of the tariff in excess of actual transportation costs is returned to them in the form of dividends. The possible imposition of excessively high tariffs, in the absence of regulation, would sharply increase the distinct competitive advantage shipper-owners already possess.

In conclusion, I submit that we are in agreement with the United States General Accounting Office 1979 study entitled, "Petroleum Pipeline and Competition--Issues Long Neglected by Federal Regulators and in Need of Attention" which stated, "Criteria should be established for determining the justness and reasonableness of oil pipeline rates and sufficient regulatory procedures implemented to assure that the criteria are followed."

Therefore, I respectfully urge your opposition to this measure.

Sincerely,

Robert J Kutil

Robert J. Kutil
President

RJK/km

CROWN CENTRAL PETROLEUM CORPORATION
PRODUCERS • REFINERS • MARKETERS OF PETROLEUM PRODUCTS AND PETROCHEMICALS
GENERAL OFFICES • ONE NORTH CHARLES • P.O. BOX 1168 • BALTIMORE, MARYLAND 21203

June 24, 1982

The Honorable Donald J. Nickles
United States Senate
Subcommittee on Energy Regulation
Senate Committee on Energy and Natural Resources
6327 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Nickles:

These comments are on your bill S.1626, which would deregulate oil pipelines. Crown Central is an independent refiner/marketer headquartered in Baltimore, Maryland. We own and operate a 100,000 B/D refinery located near Houston in Pasadena, Texas. We market our refined products in ten Southern and Eastern states, shipping them through the Colonial, and in the case of two terminals, the Plantation Pipeline. We do not own any portion of either of these common carriers, and therefore are classified as a "non-owner shipper."

Notwithstanding our lack of any ownership in the Colonial and Plantation Pipelines we have constructed or acquired thirteen modern multi-million dollar product terminals that receive all of their products from these pipelines.

The Colonial Pipeline, stretching from Texas to the New Jersey side of the New York City harbor, is the biggest in the world, notwithstanding the public's perception of the Trans-Alaskan Pipeline. While TAPS transports 1.5 million barrels of crude oil 801 miles daily, the Colonial has a capacity of 2.2 million barrels of petroleum products per day. Quoting from their Annual Report for 1981, Colonial stated that it "transports more volume more miles than any other liquid petroleum pipeline system. Each day Colonial moves about 1.7 million barrels of refined petroleum products an average distance of 1,100 miles." (Colonial Pipeline Annual Report 1981 -- inside cover). Colonial reports that it transports 46.6% of all gasolines, kerosenes and distillate fuel oils sold in Mississippi; 53.9% in Georgia; 64.1% in Tennessee; 49.3% in South Carolina; 73.4% in North Carolina; a staggering 81.2% in Virginia; 63.3% in Maryland and 116.8% in New Jersey, where barges are loaded for movements to New York and New England. These market supply figures are well above the 30% figure that many institutional economists have often testified constitute significant market power. Much of the remaining product requirements for gasoline and distillate fuel of states south of Maryland are transported by Plantation Pipeline.

June 24, 1982

The Honorable Donald J. Nickles

Colonial also acknowledges its cost advantage compared to tankers, even under normal conditions, which we have reproduced as an attachment. U.S. coastal (Jones Act) tanker rates vary seasonally and can reach extreme levels when cold winter weather hits the East Coast, thereby creating seasonal heating oil demands which cannot be satisfied by pipeline. Tanker rates may double or even triple in a few weeks. Of course, these rates also apply to gasoline and other products. It is a sobering thought that high coastal tanker rates induced by the need to move heating oil in a cold winter could place tanker shipments of gasoline totally out of the market on both availability and cost grounds. It is even possible that the owner-shippers could allow the pipeline tariffs to "float" along with tanker rates.

We are concerned that deregulation of these two contiguous common carriers could result in significant tariff increases, given their location in the Piedmont Region of the Southeastern states, in areas that are remote from alternative water transportation. It is impossible to bring products by ship or barge to these inland product terminals and it would be very costly to supply our inland markets from coastal product terminals.

To give an example of the potential increases in tariffs which might result in response to deregulation, we have computed transportation cost alternatives to two of our terminals. The current Colonial Pipeline tariff from Pasadena, Texas to Doraville, Georgia is 1.5360¢ per gal. Platt's Oilgram Price Report on 4/30/82 indicated a spot tanker rate of $11.53 per ton or approximately 3.230¢ per gal. from the Gulf Coast to the Atlantic Coast. (This was, by the way, after the end of the winter heating season.) From Savannah, Georgia by truck to our Atlanta (Doraville), Georgia terminal on the Colonial Pipeline, the truck tariff is 5.418¢ per gal. Thus, the combined tanker and truck costs alone would total 9.648¢ per gal. to get from Houston to Atlanta. In addition, we would have to arrange a thru-put at Savannah which might or might not be possible for tanker quantities, at an additional cost.

Another example is from Pasadena, Texas to our Birmingham, Alabama terminal. Product could be moved by a 40,000 bbl. barge from Houston by coastal water up the Warrior River to Birmingham Port, at a cost of $2.00 per barrel, or 4.762¢ per gal. Our Birmingham terminal is 30 miles from the port. Truck-transport would cost another 2¢ per gal. But we have no facilities in Birmingham to off-load the barge. A thru-put agreement, if we could get one, would add probably another penny per gallon, giving a total cost of over 7¢ per gal. The Colonial Pipeline tariff from Pasadena, Texas to Birmingham, Alabama is 1.3267¢ per gallon.

June 24, 1982

The Honorable Donald J. Nickles

The prospective tariffs of alternative methods of getting our products from our Pasadena, Texas refinery to market areas like Birmingham and Atlanta are so large, that it is possible that pipeline rates could increase to the point where we might have to sell our multi-million dollar terminals and our retail stations and abandon our wholesale customers, because we could not longer compete with the pipelines' owner-shippers.

Obviously the current 1941 Consent Decree which limits the payment of dividends by pipelines to 7% of their fair valuation currently prevents the kinds of potential increases which concern us. However, we presume that the Consent Decree limitations would be nullified by enactment of your bill. We are concerned that, in theory, the owner-shippers of these pipelines could increase their rates significantly, pay themselves correspondingly large increased dividends, and achieve a significantly better overall financial posture at the expense of all competing non-owner shippers who have no viable economic alternative. While we do not ascribe any conscious motive to the owner-shippers of these pipelines, their opportunity and our concern are very real.

Bear in mind that the ten owner-shippers of the Colonial Pipeline are all major oil companies: Amoco Pipeline Company, Atlantic Richfield Company, BP Oil Inc., Cities Service Company, Continental Pipe Line Company, Gulf Oil Corporation, Mobil Pipe Line Company, Phillips Petroleum International Investment Company, Texaco Inc., and Union Oil Company of California.

The non-owner shippers are preponderantly independents and consumers. Similarly, the owners of the Plantation Pipeline are major oil companies: Exxon, Shell, and Standard Oil Company of California.

In short, we believe that the cost characteristics of the parallel Colonial and Plantation Pipeline systems, which reflect low historical costs of land acquistion and construction, have significant monopoly characteristics in the sense that their cost advantage over other transportation alternatives is so great. With the declining demand for petroleum products and the excess capacity which exists, plus the urban growth which has occurred over much of the necessary right-of-way, it is extremely unlikely that any other parallel pipelines will ever be built because they could not be competitively viable with existing pipelines. Thus, we are concerned that owner-shippers have potential monopoly power with regard to the high cost advantage that exists, and the existence of dedicated terminals owned and operated by non-owners. There is the possibility that the owner-shippers might exercise this advantage in an unregulated world.

These concerns could be alleviated if the non-owner shippers having dedicated product terminals along these lines were given the opportunity to purchase a portion of these carriers, that would be representative of their thru-puts, at reasonable prices, in order to supply their captive terminals. Under such circumstances, which would require large capital investments, the deregulation of these pipelines would be less damaging economically to the non-owner shippers where cost competitive alternatives do not exist. In that event the threat to our investments in our product terminals and retail marketing investments would be diminished. It is important to remember that the non-owner shippers include, almost without exception, the independent refiners in the industry who are the primary suppliers of independent marketers, who absent such protection might also be forced out of business.

In summary, our corporate philosophy is one of deregulation where effective competition exists. Thus, we support your bill where there exist numerous alternative transportation modes that are cost competitive, but we think that clearly the Colonial and Plantation product pipeline systems should be grouped with the Trans-Alaskan crude pipeline on the basis of a lack of cost-competitive alternatives.

Respectfully submitted,

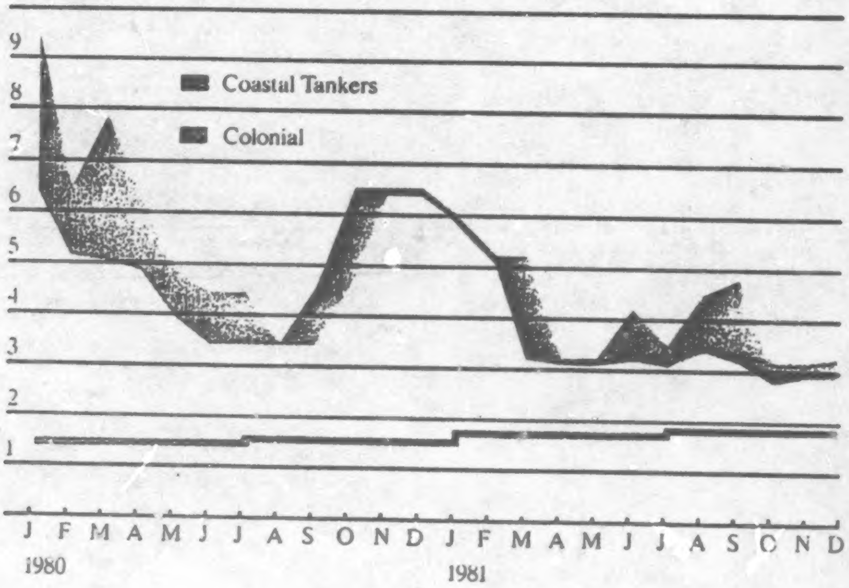
CROWN CENTRAL PETROLEUM CORPORATION

Edwin P. Mampe
Director
Government Affairs

EPM/agh

COLONIAL PIPELINE ANNUAL REPORT - 1981 (Page 13)

Colonial Pipeline vs. Coastal Tanker Rates
Gulf Coast to New York in Cents per Gallon



EXXON PIPELINE COMPANY
POST OFFICE BOX 2220 · HOUSTON, TEXAS 77001

L. D. WOODY, JR.
PRESIDENT

June 16, 1982

The Honorable Donald L. Nickles
Subcommittee on Energy Regulation
Committee on Energy and Natural Resources
United States Senate
6327 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Nickles:

At the hearings on S. 1626, Department of Energy Organization Act Amendments of 1981--also known as the Petroleum Pipeline Regulatory Reform Bill--and Printed Amendment No. 1239, Senator Frank H. Murkowski requested that Mr. Dean B. Taylor, Chairman of the Association of Oil Pipe Lines (AOPL), provide for the record the position of certain oil pipeline companies on S. 1626 and the pending amendments thereto. By letter of May 27, 1982, Mr. Taylor advised you that each of the requested companies would send a statement directly to you.

Exxon Pipeline Company appreciates this opportunity to express for the record its strong support of the statement of Mr. Taylor on behalf of AOPL and the supporting statements and studies of Professor Edward J. Mitchell and Mr. Richard J. Barber. Exxon Pipeline Company is a member company of the AOPL and officially supported the recommendation of the AOPL Executive Committee to the Association membership, shown as Attachment A to Mr. Taylor's filed statement. A copy is attached to this letter as well.

Highly competitive forces prevail in the entire oil industry. The oil pipeline industry, a small but important link in the chain, is also subject to pervasive competition from a multitude of sources. Given the competitive environment in which oil pipelines must survive and the need to encourage new capital formation, economic deregulation is long overdue. Exxon Pipeline Company urges Congress to enact with the utmost speed S. 1626 as amended by Printed Amendment No. 1239 to insure the survival and timely expansion of this industry as a strong contributor to the growth of the American economy. Additions to the transportation system, especially in frontier areas, are vital to the energy self-sufficiency objectives of our nation.

We also urge Congress to reject the views of those who give lip service to deregulation, but would seek to impose an additional layer of regulation upon oil pipelines through the use of a "market dominance/reregulation concept." Congress should also reject the views of those who would exclude without any substantive basis the Trans Alaska Pipeline System (TAPS), which comprises eight separate oil pipeline companies that operate as individual common carriers transporting crude oil from the Alaska North Slope to Valdez, where it is transported by tanker to numerous U.S. West Coast and Gulf of Mexico markets.

The most common misconception about TAPS is that it is a single pipeline carrier. It is not. To the contrary, it is eight pipeline carriers operating in a single pipeline facility. Each of the eight pipeline carriers owns a discrete amount of the TAPS capacity and operates its own pipeline business, posting its own tariff, soliciting tenders, billing and collecting from its shippers completely independent of the other carriers. These facts are simply ignored by those who would label TAPS a "natural monopoly." With eight pipelines competing to fill their respective capacities, TAPS cannot be distinguished from lower 48 pipelines. The advantage of physically combining capacities into a single pipeline facility to provide transportation at a much lower cost is not unique to Alaska, but is also used in a number of lower 48 pipelines.

In addition to the competitive forces of eight separate carriers serving the North Slope, Mr. Richard J. Barber, a recognized expert in transportation matters and author of the study, "The Transportation of Alaskan North Slope Oil by Pipeline: An Assessment of the Competitive Issues Relevant to Rate Regulation" (Barber Study), noted other factors that now have and will have in the future a constraint on the individual rates of the TAPS carriers. For example, Alaska North Slope crude faces intense competition from other sources of supply in both West Coast and Gulf of Mexico markets (pages 9-13, Barber Study).

The opponents of TAPS deregulation, in addition to ignoring the facts about existing competition in North Slope transportation (pages 17-24, Barber Study), offer no support of their charges that TAPS is a monopoly and, thus, exhibits market power. As an example, one trait of monopoly power is the ability to limit capacity. Yet, no single TAPS carrier can prevent the expansion of the line. In addition, the facts show that there has been no exercise of monopoly power. TAPS was originally planned as a 600,000 barrel a day pipeline, but was expanded to a 1,200,000 barrel a day pipeline before oil first entered the pipeline. Since that date, the pipeline has been expanded to 1,420,000 barrels a day by the installation of additional hardware. In addition, through ingenious new technology and operating efficiency, throughput has been increased to a level that currently permits every barrel of petroleum that the State of

Alaska will allow to be produced from the fields connected to TAPS to be transported in the pipeline. This is hardly a picture of limiting capacity and asserting market power.

The pipeline industry is a high volume/economics of scale-oriented business, and a high and increasing throughput results in maximum efficient use. To dispel another misconception, it should be recognized that capacity limitations make no sense in an integrated oil company where its pipeline subsidiaries are common carriers obligated to make available their pipeline capacity to all shippers including their parent company without discrimination. If a pipeline company with a parent shipper undersizes, non-owner shippers could force their crude oil in the pipeline via proration at the expense of the parent company shipper. This is clearly not in the business interest of an integrated oil company. The incentive is to expand, not restrict capacity.

The most appalling fact about those who oppose economic deregulation of oil pipelines and seek to nullify its benefits through a "market dominance/reregulation concept" is the manner in which they ignore the total lack of public interest in the continued economic regulation of oil pipelines. This is particularly true of those who seek to exclude TAPS from economic deregulation. As demonstrated in Mr. Barber's study (pages 30-31), a reduction in the TAPS carriers' tariffs has no impact on consumers of Alaska oil in the lower 48. The principal beneficiary of such a reduction is the State of Alaska at the expense of the Federal Government and the oil pipeline companies. Mr. Barber estimates that the Federal Government revenue loss will be $55 million a year for an assumed one dollar per barrel reduction in the TAPS tariffs.

Of still more importance is the impact that continued regulation of the eight TAPS carriers will have on consumers, explorers, producers, marketers, and refiners of petroleum. The history of government regulation of TAPS and its Owners has been oppressive and has sent an economic message to investors. The message is that, even if a project is successfully completed, state and federal regulatory authorities will second guess the prudence of the investment and reduce your level of return to that of a risk-free bond or government security. The bureaucratic stifling of projects, such as TAPS, Seadock, LOOP, and Northern Tier Pipeline, has all but totally destroyed the availability of capital for major projects which are subject to regulation, particularly in frontier areas. The spillover of this governmental second guessing attitude could cast a pall over the Alaska gas pipeline project which is confronting a major financing obstacle. The real problem the Senate Energy and

Natural Resources Committee must address is not how high charges for transportation will be when the charges do not impact consumers, but will the necessary transportation facilities funded by private capital be there when needed.

The opponents of deregulation of TAPS also argue that deregulation of TAPS will result in tariff rates that will discourage exploration and development on the Alaska North Slope. Yet, anyone familiar with the facts of the situation knows that the greatest impact on the North Slope exploration and development is the state and federal leasing policies. In contrast, the mere existence and continued commitment of the eight carriers owning TAPS is the biggest encouragement to exploration and development. Other interests are assured of a competitive transportation system for any oil they produce. As Mr. Barber so vividly illustrated in his study (pages 22-26), the encouragement of further exploration is a common goal of all interested parties. The State of Alaska's demand for more money now is taking a very short-term view and simply failing to recognize the need to encourage investment in privately funded transportation facilities throughout the United States including yet to be developed areas in Alaska, the Outer Continental Shelf, and the Overthrust Belt.

Finally, Exxon Pipeline Company has grave concerns about deregulation subject to a "market dominance/reregulation concept." The experience of the railroads under the Railroad Revitalization and Regulatory Reform Act and now under the Staggers Rail Act of 1980 is sufficient to alert all concerned to the future regulatory morass that the oil pipeline industry can expect if such a provision is included in S. 1626 as amended. For almost five years, Exxon Pipeline Company and the other seven TAPS carriers have been involved in a massive rate proceeding before the Federal Energy Regulatory Commission. Even the most optimistic participants in the proceeding predict a continuation of the current proceeding for at least 7 to 10 years, then further rate proceedings throughout the life of the eight pipeline carriers operating in TAPS. The case has created a job insurance program for an army of lawyers, economists, and accountants. In addition, over the last five years, a very costly federal and state bureaucracy which breathes and feeds off of the TAPS rate proceeding has been created. The difficulty in disengaging this bureaucracy was illustrated recently in the attempt by British Petroleum and the State of Alaska to reach a settlement only to see it undermined by the Federal Energy Regulatory Commission Staff. Reregulation, through some type of market dominance test, is a guarantee that tomorrow's regulatory climate will have even a greater impact on new pipeline investments given the acknowledged interests of the regulators. Reregulation will simply engraft another proceeding that will provide an additional contested hearing and determination as a condition precedent to a ratemaking proceeding. Reregulation or the exclusion of major projects, such as TAPS, will create an even larger cloud of uncertainty over any new oil pipeline projects.

Again, Exxon Pipeline Company reiterates its support of the AOPL and its opposition to those who would seek to undermine the substantial public interest benefits of oil pipeline economic deregulation, including TAPS.

Very truly yours,

L. D. Wooddy, Jr.

LDW:rmm
Attachment

c: The Honorable Gordon J. Humphrey✓
The Honorable J. Bennett Johnston, Jr.
The Honorable Frank H. Murkowski

ATTACHMENT "A" TO
STATEMENT OF DEAN B. TAYLOR
CHAIRMAN
ASSOCIATION OF OIL PIPE LINES
SUBCOMMITTEE ON ENERGY REGULATION
COMMITTEE ON ENERGY AND NATURAL RESOURCES
May 21, 1982

The A.O.P.L. Executive Committee recommends to the membership that the Association actively support the Petroleum Pipeline Regulatory Reform Legislation (S-1626 and HR-4488) sponsored by Senator Nickles and Representative Synar with technical amendments required to essentially conform such legislation to the draft legislation approved by the A.O.P.L. Executive Committee on October 13, 1981, which include amendments to the Interstate Commerce Act and do not exclude any common carrier petroleum pipelines.

NATIONAL COOPERATIVE REFINERY ASSOCIATION
P.O. BOX 1167
McPHERSON, KANSAS 67460

June 2, 1982

J. R. THRASHER
President and
Chief Executive Officer

Phone 316-241-2340

The Honorable Donald L. Nickles
United States Senate
6327 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Nickles:

This letter is being written to express our opposition to pipeline rate deregulation as you have proposed in S. 1626. We request that this letter be made a part of the official record for the May 21st hearing of the Senate Energy Regulation Subcommittee of the Senate Energy Committee.

National Cooperative Refinery Association operates a 57,000 barrel per day refinery at McPherson, Kansas. More than 95% of the refinery raw materials are delivered by common carrier pipelines. About 85% of the refinery products are transported by pipeline to dozens of terminals throughout the North Central States. Most of the refined fuels produced by NCRA are sold through farm cooperatives and used by farmers.

As shown on the enclosed map of pipelines used by NCRA, most oil producing areas and product marketing areas are served by only one pipeline. This is not likely to change because existing pipelines have such a competitive advantage over potential competitors that only in unusual situations would a competing pipeline be built. This position of virtual monopoly by existing pipelines is exacerbated by surplus pipeline capacity in many areas due to declining product markets. Pipeline economics favor large volume, near capacity operation. If deregulated, most pipelines could raise their rates substantially without fear of losing their competitive position. Alternate forms of transportation including trucks, railroads, and waterways are unavailable and/or impractical for the markets we serve.

FARMLAND INDUSTRIES, INC., KANSAS CITY, MISSOURI
FARMERS UNION CENTRAL EXCHANGE, INC., SAINT PAUL, MINNESOTA • LAND O'LAKES, INC., FORT DODGE, IOWA
GROWMARK, INC., BLOOMINGTON, ILLINOIS • MFA OIL COMPANY, COLUMBIA, MISSOURI • MIDLAND COOPERATIVES, INC., MINNEAPOLIS, MINNESOTA

Due to the monopolistic position of most pipeline systems, continued regulation of pipeline rates is in the public interest. Without regulation, rate increases would accelerate further adding to the cost of petroleum products. Since nearly all of our refined fuels are used by farmers, any cost increases will only worsen their already depressed economic situation. Thank you for your consideration of our position opposing pipeline deregulation.

Yours truly,

J R Thrasher

J. R. Thrasher
President

JRT:tf
Encl.

National Cooperative Refinery Association

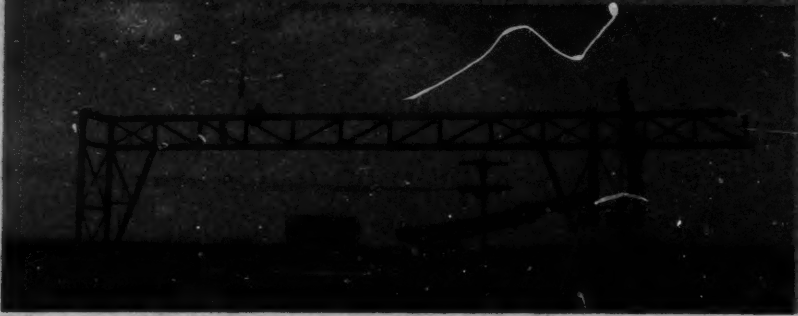
New corporate office building

McPherson, Kansas

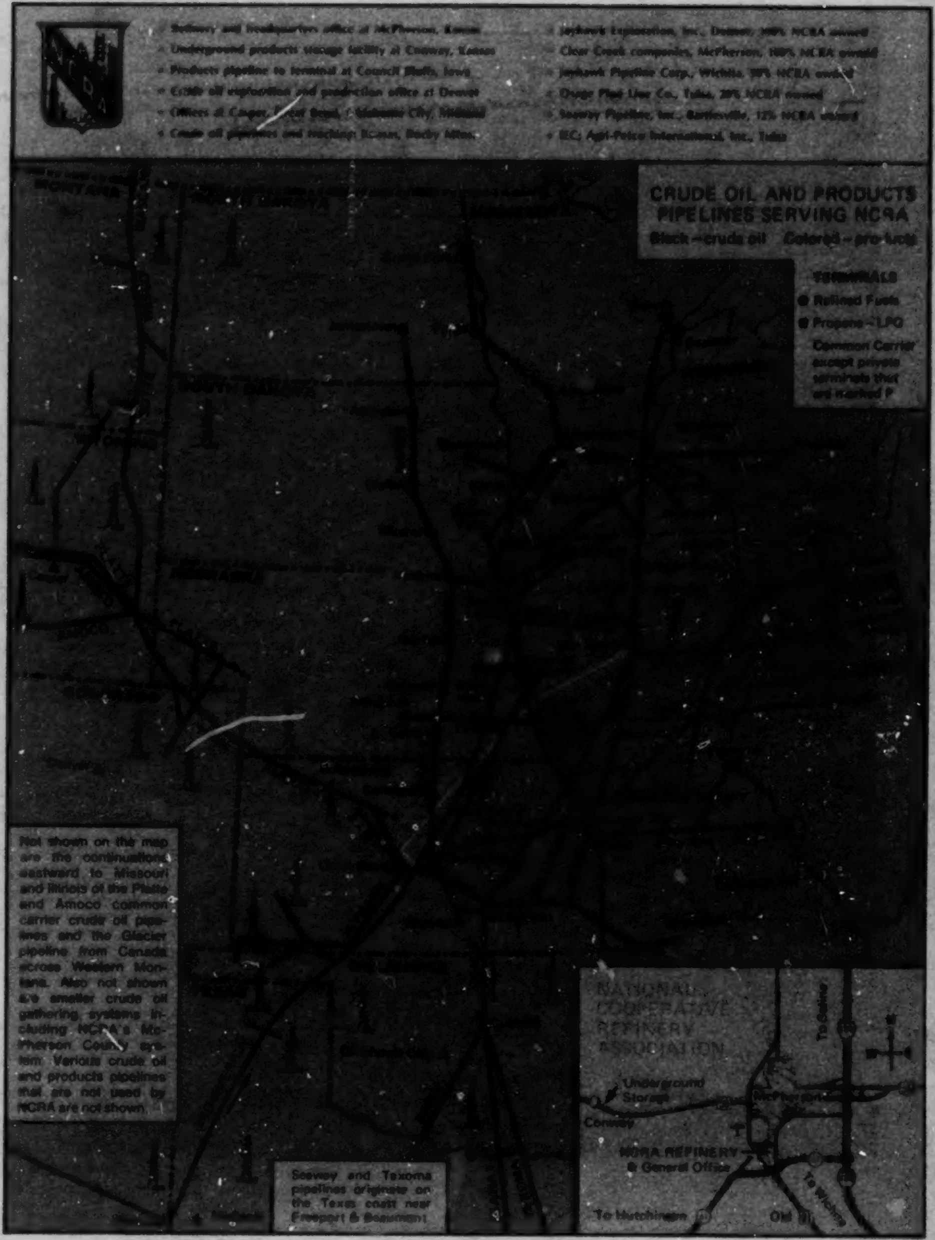
Seaway Pipeline

Tanker unloading dock

Freeport, Texas



Pipe rack and bridge to new flare and cooling tower of McPherson refinery


Refinery and headquarters office at McPherson, Kansas
Underground products storage facility at Conway, Kansas
Products pipeline to terminal at Council Bluffs, Iowa
Crude oil exploration and production office at Denver
Offices at Casper, Great Bend, Oklahoma City, Midland
Crude oil pipelines and trucking: Kansas, Rocky Mtns.
Jayhawk Exploration, Inc., Denver, 100% NCRA owned
Clear Creek companies, McPherson, 100% NCRA owned
Jayhawk Pipeline Corp., Wichita, 50% NCRA owned
Osage Pipe Line Co., Tulsa, 20% NCRA owned
Seaway Pipeline, Inc., Bartlesville, 12% NCRA owned
IEC; Agri-Petco International, Inc., Tulsa
CRUDE OIL AND PRODUCTS PIPELINES SERVING NCRA
Black—crude oil
Colored—products
TERMINALS
● Refined Fuels
● Propane—LPG
Common Carrier except private terminals that are marked P
MONTANA
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
NATIONAL COOPERATIVE REFINERY ASSOCIATION
Underground Storage
Conway
McPherson
NCRA REFINERY & General Office
To Salina
To Hutchinson
To Wichita

Not shown on the map are the continuations eastward to Missouri and Illinois of the Platte and Amoco common carrier crude oil pipelines and the Glacier pipeline from Canada across Western Montana. Also not shown are smaller crude oil gathering systems including NCRA's McPherson County system. Various crude oil and products pipelines that are not used by NCRA are not shown.

Seaway and Texoma pipelines originate on the Texas coast near Freeport & Beaumont.

ORC
OKLAHOMA REFINING COMPANY

1982 JUN 14 AM 10 47

June 11, 1982

The Honorable Donald L. Nickles
United States Senate
6327 Dirksen Senate Office Building
Washington, D.C. 20510

Attention: Mr. Steve South

Dear Senator Nickles:

Oklahoma Refining Company wishes to emphasize the following points in its position to Oil Pipeline Deregulation (S.1626):

1. The Mitchell study, which provides support for deregulation, is highly biased toward the largest metropolitan areas, a high percentage of which have access to water transportation. How many such areas are there in Oklahoma? We believe Tulsa is the only one, and it is a market in which ORC does not operate. It is our position that the basis upon which deregulation has been proposed is irrelevant for most of the state.

2. The idea that other forms of transportation provide adequate competition for pipelines is not valid for most of Oklahoma. In ORC's supply and market area, trucks are the only available alternative mode of transportation. Long-distance transportation by truck costs much more (per unit of product) than by pipeline. Therefore, increases in pipeline tariffs in these areas (beyond rates that are economically justified) will only serve to foster inefficiencies with their resulting impact on consumer costs and inflation.

3. The hearing on May 21 was extremely limited and did not provide an adequate forum for the presentation of the many points which need to be considered. Surely an issue as significant to the industry and consumers of Oklahoma deserves more thorough consideration.

If you have any questions about ORC's position on this matter, please call Wesley W. Morrison, Vice President, Marketing, Transportation & Supply in this office.

Sincerely yours,

J. H. Pittinger
President

JHP/jb

cc: W. W. Morrison - ORC

800 NORTH EASTERN • P.O. BOX 26386 • OKLAHOMA CITY, OKLAHOMA 73126 • 405/424-4661 • TWX 910-831-3185

National Council of Farmer Cooperatives
1800 MASSACHUSETTS AVENUE, N.W. • WASHINGTON, D.C. 20036 • TELEPHONE (202) 659-1525

[illegible] NGY AND NATURAL RES.
RECEIVED
JUL 22 1982
WASHINGTON, D.C. 20510

JUL 22 1982

July 16, 1982

The Honorable James A. McClure
Chairman
Senate Committee on Energy and
Natural Resources
3121 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

The National Council of Farmer Cooperatives would like to register its deep concern regarding S. 1626, introduced by Senator Nickles, which would remove the authority of the Federal Energy Regulatory Commission (FERC) to administratively regulate rates and practices of oil pipeline companies engaged in transporting crude oil or refined product in interstate commerce. We understand this bill has been added to the business meeting agenda of the Committee on Energy and Natural Resources.

The oil pipeline transportation industry has been under some form of governmental regulation since the turn of the century. That regulation was initiated because of discriminatory and concessionary practices associated with oil transportation. The Interstate Commerce Commission was originally charged with regulating oil pipelines, and in 1977 the Department of Energy Organization Act transferred that jurisdiction to FERC.

We are concerned about S. 1626 because many cooperatives, and rural areas in general, are highly dependent on a single pipeline company which delivers crude oil and petroleum products to their region. No other method of transporting crude oil or refined product (motor carrier, railroad, barge) to these areas is anywhere near as economically feasible as a petroleum pipeline. Therefore, we believe the market power possessed by most oil pipelines constitutes a sufficient danger to justify the retention of Federal rate regulation.

On May 21, 1982 the Subcommittee on Energy Regulation held a brief hearing on S. 1626, chaired by Senator Nickles, at which a number of government (DOE, FERC, Justice, OMB) and public witnesses testified. Due to an objection by another Senator, the subcommittee was unable to meet past 11:00 a.m. that day. This left very little time--after the government witnesses testified--for the public witnesses to present their views (3 or 4 minutes per witness). Furthermore, much of the discussion during the hearing dealt with the Trans Alaska Pipeline System (TAPS), leaving little time to explore the problems deregulation might cause in the lower 48 states.

"AMERICA'S FARMER OWNED BUSINESSES"

The Honorable James A. McClure
July 16, 1982
Page 2

Although the Administration testified in favor of S. 1626 on May 21, the agencies involved have not yet formulated a unified position on how the legislation would be implemented. We understand this work will not be completed until sometime this fall.

Under these circumstances, we were surprised to learn S. 1626 was placed on the committee's agenda on June 11. As the oil pipeline industry has been under some form of regulation for nearly 80 years, we urge you to consider carefully proposals to deregulate it. In our view, further hearings are needed on this extremely complex issue.

We have appreciated working with you the past months on other energy issues--especially the Standby Petroleum Allocation Act. We commend you for your strong leadership and stand ready to work with you on this and other issues in the future.

Sincerely,

Ken Naden

Kenneth D. Naden
President

KDN:sn